

# MANUFACTURERS RECORD

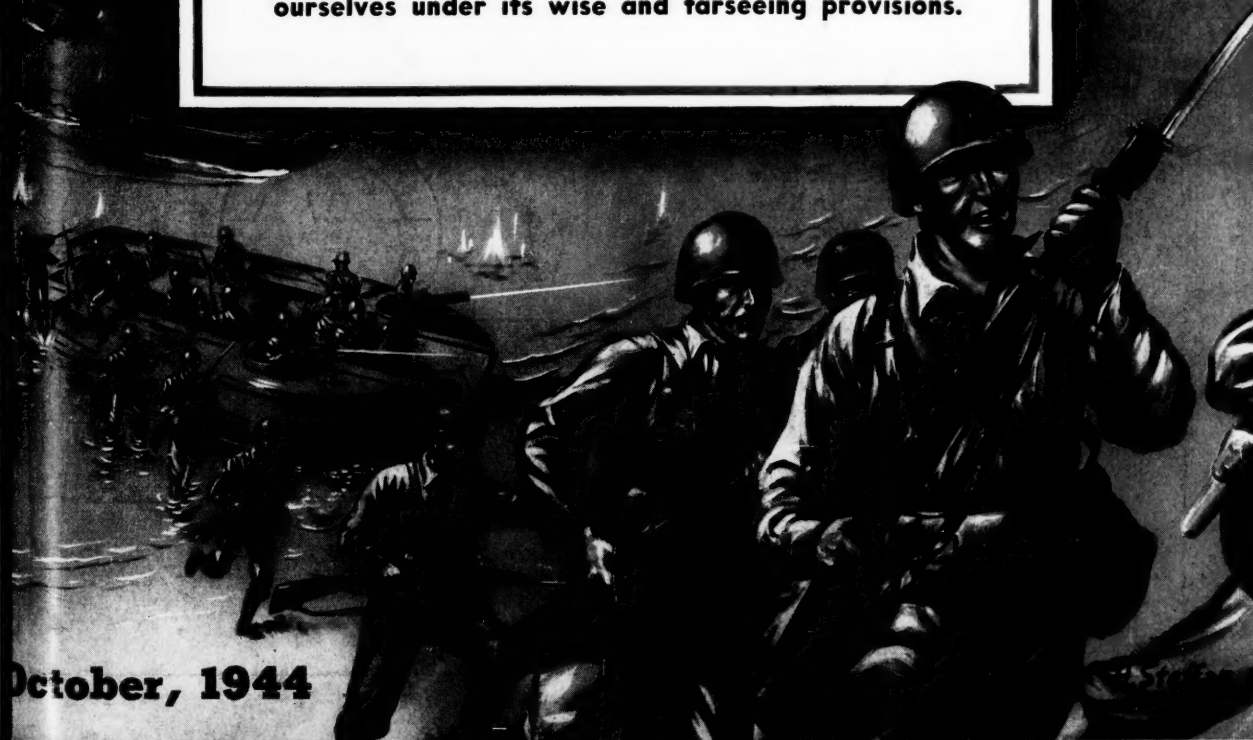
DO NOT LOAN

## YESTERDAY—TODAY AND FOREVER

The Constitution of the United States was designed as a framework for a government that would embody the ideals of a free people and perpetuate those ideals for posterity.

Governed under this constitutional framework, the American people, past and present, have created the greatest nation that the world has ever known. Our Nation is great not merely because it is powerful. It is truly great because it has remained free.

The Constitution still remains. Let us follow the example of our forefathers and continue to govern ourselves under its wise and farsseeing provisions.



October, 1944



**THIS** picture might have been taken centuries ago. It shows a bamboo pipeline, carrying brine from 2,600 year old salt mines to a refinery in the heart of modern China. Here in Tse Liu Ching, Szechwan province, steel pipe is not available, and the Generalissimo's engineers must use primitive bamboo pipe as a war-time substitute.

Of course the bamboo pipe splits, is eaten by insects, deteriorates with age and sun. Every day coolies must repair it, by wrapping the lines with bamboo strips. There are countless sizes of bamboo pipe, all different (and none of them big enough). And the technique of making permanent water-tight joints is unknown.

But this bamboo pipe points to what we in America seldom realize...the importance of steel. Low-cost durable steel pipe, for example, is a priceless ingredient of our civilization. Without it we could not have our pure water supplies, or our sanitary systems. Our railroads, factories, oil fields and power plants could not exist without modern steel pipe.

Steel is America's No. 1 basic industry. The whole structure of American life--with all its security, convenience and comfort--depends upon the steel and steel products of which Youngstown is a leading manufacturer.



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THE YOUNGSTOWN SHEET AND TUBE COMPANY  
YOUNGSTOWN, OHIO

Manufacturers of  
**CARBON - ALLOY AND YOLOX STEELS**

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Pipe and Tubular Products - Sheets - Plates - Conduit -  
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# MANUFACTURERS RECORD

ESTABLISHED 1882

*A Publication for Executives*

Volume 113      OCTOBER, 1944      Number 10

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## SPECIALIST IN GETTING THE “BUGS” OUT

Merely saying, “Ideas are dandy — let’s have yours,” isn’t enough to get employees to suggest improvements in products, methods or processes.

One reason the Morton Suggestion System has worked so well in over 10,000 installations in 16 years is the specific nature of the appeals it uses. “Getting the bugs out” is just one important line along which the Morton Suggestion System guides creative employee thinking.

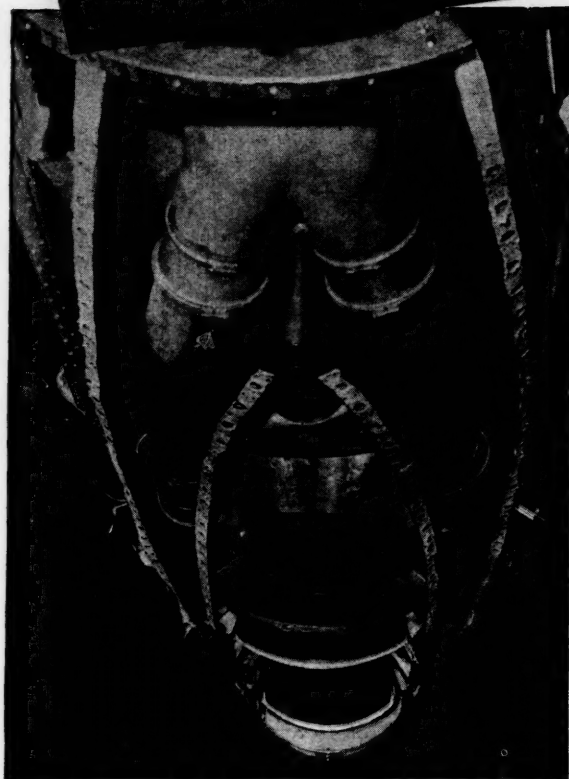
Proved, resultful appeals are one of many features that enable this expertly planned idea producer to work anywhere, anytime. Even though you now operate your own, it will pay you to investigate the Morton Suggestion System. Its ability to raise employee morale, improve quality of ideas and more than pay its way, can be extra valuable in the period just ahead.

Get the cost-free details immediately. Simply drop us a line — we’ll do the rest.

MORTON MANUFACTURING CO.  
SUGGESTION SYSTEM DIVISION  
356 N. Leamington Ave., Chicago 44, Ill.



this is how a  
**THUNDERBOLT EXHALES**



Here is part of a hard-hitting "Thunderbolt's" exhaust system—one of the hottest spots in a fighting plane.

Exhaust gases roar through this network of piping at temperatures of 1500°F. and higher—too hot for most metals to endure. This is why ARMCO Stainless Steels are used for the complete exhaust systems in many of Uncle Sam's warplanes.

ARMCO Stainless is doing its job well too. In firewalls and exhausts these rustless, durable metals defy red hot temperatures. In many other parts light though strong sheets of this hard, tough metal resist corrosion and the vibration of roaring engines.

If you are making vital parts for America's warplanes, consider ARMCO Stainless Steels. They are supplied in the conventional types, including the Columbium and Titanium stabilized grades. And remember them where resistance to heat and corrosion are needed in your peacetime products. For complete information about ARMCO Stainless just address The American Rolling Mill Company, 3041 Curtis Street, Middletown, Ohio.



EXPORT: THE ARMCO INTERNATIONAL CORPORATION

**THE AMERICAN  
ROLLING MILL COMPANY**

## Little Grains of Sand

*"Little drops of water, little grains of sand,  
Make the mighty ocean, and the pleasant land."*

The South, "nation's No. 1 economic problem," purchased War Bonds during the Fifth War Loan drive at a rate that belies those who would deride the economic status of the States below the Mason and Dixon's line. The nation as a whole purchased 106 per cent of the quota set by the Treasury; thirteen States, all outside the South, failed to purchase their quotas. Every State of the South purchased over quota in percentages from 109 to 232.

According to reports, the census of manufacturers scheduled to begin January, 1945, covering the year 1944, will not be of much value to business, and for this reason the full census of all phases of production and distribution is being planned for 1946. The main purpose of the emergency census is to provide a picture of America mobilized for war. The plan is to send out one general questionnaire, instead of the general questionnaire and the 158 special ones of particular types of business. In addition to the limited census of manufacturers, the 1945 census effort will include: (1) A sample census of population, broken down by regions; (2) a report on consumer income, based on a sample; (3) a sample survey of housing; (4) a sample survey of consumer expenditures by the Bureau of Labor Statistics and the Bureau of Agricultural Economics; and (5) a full census of agriculture.

In many middle western states farmers are buying eggs at five cents a dozen to feed to their hogs.

Right after the outbreak of war the super intellects of Washington launched a typical desk planned campaign to increase the production of poultry and poultry products. The campaign worked so well that we have the result stated above.

So, the story of eggs has become a repetition of the story of the slaughter of the little pigs, the story of so many of the overballyhooed plans of a bureaucratic "planned economy." Of course, the public generally still pays a stiff price for eggs, and for the hens that produce them. This time the pigs get a "break."

William L. Clayton's decision not to accept appointment as surplus property administrator under the bill approved by the conference committee of the two houses of Congress means that the services of a man of unquestioned ability and integrity have been lost to the country through the fumbling and bumbling of our legislators who again have demonstrated their inability to place the well ordinary business common sense above pressure politics.

A couple of weeks ago, a group of Congressmen, in England on an "inspection" tour—though no one  
(Continued on page 8)

MANUFACTURERS RECORD FOR

OCTOBER





## Which One Is Forced to Waste Time?

Don't blame poor Miriam because she is always involved in a carbon mess. How would you like to wrestle with ink-smearing carbon sheets ... stuffing them in and out, in and out?

And it is such a needless procedure, now that you can get modern, up-to-date Uarco **continuous-strip** record forms. Forms that have the carbons neatly interleaved ... eliminate time-wasting carbon fuss and bother. You'll be surprised at what that means in time-saving efficiency. For Uarco puts an end to repetitive actions by routinizing the tedious job of record keeping.

Uarco records are more than mere forms. They are functional business tools that give the how, where, and when of every business transaction at

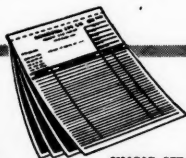
any given moment ... keep the work moving smoothly with a minimum of trouble. Uarco records are designed either for handwritten or machine-written use. They may be carbon interleaved or non-interleaved; may be used in a Uarco Autographic Register, typewriter, billing or tabulating machine.

For over 50 years, Uarco has been supplying better record forms to business. We will consider it a pleasure to work with you on your individual record keeping problem. It will cost you nothing to have a Uarco representative call today.

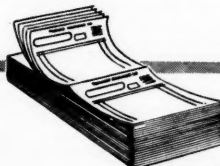
UNITED AUTOGRAPHIC REGISTER COMPANY  
Chicago, Cleveland, Oakland • *Offices in All Principal Cities*



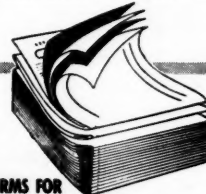
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# UARCO

## BETTER BUSINESS RECORDS

OCTOBER NINETEEN FORTY-FOUR



# Florida\*

## PENINSULA OF PROGRESS



CITRUS



VEGETABLES



TIMBER



NAVAL STONES



MANUFACTURING



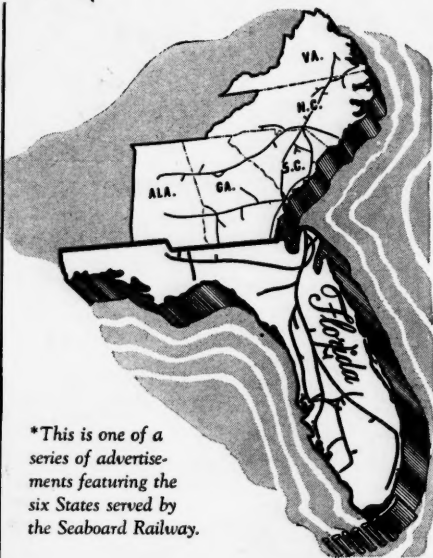
MAN-POWER



PHOSPHATE ROCK



CATTLE



\*This is one of a series of advertisements featuring the six States served by the Seaboard Railway.

Florida, "Land of Flowers," is justly famous for its beauty and delightful climate. Florida, too, has rightly come to be known as the winter vacation land of the Nation. But nature gave Florida more than beauty and mild climate. Fertile soils, vast forests, mineral resources and a greater variety of crops than any other state, have all combined to bring Florida an amazing development in agriculture and industry.

Products of grove and farm and forest are finding ever-increasing uses in the industrial life of the State. With matchless resources and a progressive, energetic people, Florida's prospects for the future are exceedingly bright.

The Seaboard Railway has been a pioneer in the development of Florida. In fact, the history of the Seaboard is in large measure synonymous with the story of Florida's remarkable growth. Today, Florida's production is a weighty factor in the waging of war. Tomorrow will witness further acceleration in the expansion of Florida's industry and agriculture, a development which the Seaboard will aid in fullest measure.

Seaboard Railway, Norfolk 10, Virginia.



Buy more WAR BONDS!

(Continued from page 6)

knows what they were qualified to inspect—became loudly annoyed in the public prints because of difficulty in getting permission to "inspect" the actual battle front. They, they claimed, had as much right to "inspect" the fighting zone as a group of labor leaders who, shortly before, had been taken to France to see if General Eisenhower was running the war properly. The Congressmen were indisputably right. The labor leaders had no business over there, and the Congressmen had just as much.

Effective November 1, the special delivery mail rate will be increased to 13 cents on letters and on parcels of less than two pounds. The bill signed by the President, permits also a decrease from five to three cents on insured mail. Included in the Act, too, is a flat 33½ percent increase on return receipts for registered mail and a sliding scale for C.O.D. charges ranging from 40 cents for values less than \$10, or \$1.40 per \$1,000 on all classes of mail.

The following paragraph from a letter dated September 25th written by Mr. H. M. Pace, Chairman of the State Planning Board, State of South Carolina, speaks for itself: "The MANUFACTURERS RECORD has rendered invaluable service in constantly emphasizing to our people the golden opportunities and advantages of the Southland. Please continue vigorously to drive home the fact that the South can solve many of the problems facing it today by a fuller utilization of its own creative ability backed up with incessant aggressiveness."

The Southern Traffic league, in a resolution which it unanimously adopted at its 6th annual meeting, said that the government's anti-trust suit against the Association of American Railroads and others "clearly involves the entire system of transportation and of railroad rate making."

The shippers said the interstate commerce commission "most efficiently exercises jurisdiction in the public interest with the respect and confidence of shippers" and that a national transportation system composed of individual carriers could not be operated without an overall national organization.

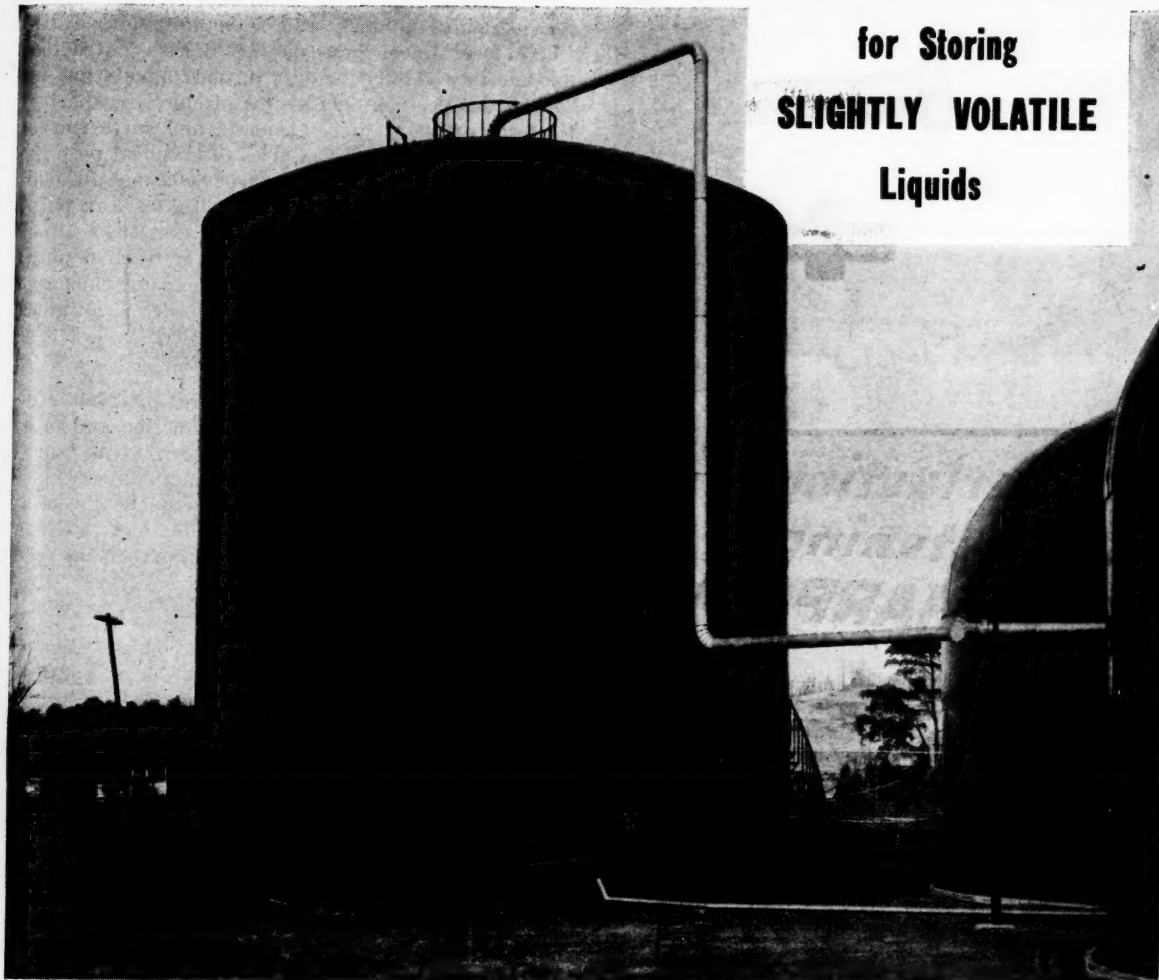
The library at Harvard College dates back to 1638. The ideas of bright young graduates of the Harvard Law School who find the atmosphere of Washington so congenial date back many thousands of years before that.

The Association of American Wood Pulp Importers issued the following statement in clarification of the situation regarding the early shipment of Swedish pulp: "The Swedish Cellulose Association, whose members are practically all the woodpulp mills for export in Sweden, has informed us that they definitely are going to ship the same tonnage as before the war, provided, of course, that American buyers are willing to buy. While it is quite true that the British

(Continued on page 10)

# . . . IT'S HARD TO BEAT A HEMISPHEROID

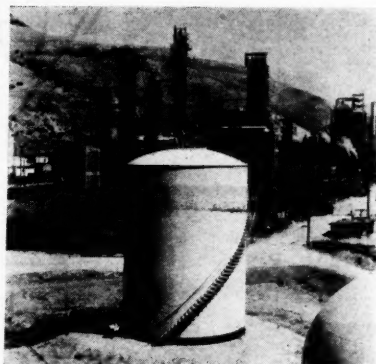
for Storing  
**SLIGHTLY VOLATILE**  
**Liquids**



**L**IQUIDS with volatile components should be handled and stored under pressure to prevent excessive loss by evaporation as well as product deterioration. For the storage of liquids that are only *slightly volatile*, industry has learned that it's hard to beat a Hemispheroid. Here's how these pressure vessels operate: Protection is accomplished by making use of the simple fact that no loss will occur as long as vapor does not escape from the tank. The tanks are built to withstand the maximum vapor pressure of the product being stored and are equipped with relief vents set to open above this pressure. Instead of allowing the air-vapor mixture to escape when the temperature rises, pressure is built up inside the tank.

The efficiency and simplicity of Hemispheroids make them ideal for industries requiring storage facilities for many diversified products. Write our nearest office for information or quotations on installations to meet your needs.

The 12,500-bbl. Hemispheroid shown above is used to store aqua ammonia. Below: 5,000-bbl. Hemispheroid at an aviation gasoline plant storing isomate at 5 lbs. per sq. in. pressure.



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New York 6 .....3313-165 Broadway Building  
Cleveland 16 .....2216 Guildhall Building



Chicago 4 .....2106 McCormick Building  
San Francisco 5 .....1040 Rialto Building  
Philadelphia 3 .....1619-1700 Walnut St. Building  
Havana .....402 Edificio Abreu  
Washington 5 .....330 Bowen Building

Plants in **BIRMINGHAM, CHICAGO**

and **GREENVILLE, PENNSYLVANIA**

RD FOR OCTOBER NINETEEN FORTY-FOUR



**Everlasting  
Fastenings  
by HARPER  
Chicago**

The Harper organization is known as "Headquarters for Everlasting Fastenings" because it specializes in the manufacture of bolts, nuts, screws, washers, rivets and accessories made of Brass, Naval Bronze, Silicon Bronze, Copper, Monel and Stainless. Nothing in common steel. 4360 items in stock. Specials made to order. Write for 104 page, 4 color catalog and reference book. The H. M. Harper Company, 2645 Fletcher St., Chicago 18, Ill. Branch offices in principal cities.

(Continued from page 8)

have already negotiated a contract for delivery of Swedish pulp, there will still be ample supplies available to meet American needs. The British contract is for monthly shipments over a year, amounting to 20,000 tons per month. Swedish productive capacity is close to 250,000 tons a month, and furthermore there are at present inventories of chemical pulp in Sweden amounting to between 600,000 and 700,000 tons. This should allay any fears of American pulp consumers who are inclined to feel that the United States will be excluded from sharing in Swedish pulp exports because of the present low operating capacity of the industry and the recent contract negotiated with the British."

This country has tried agricultural price maintenance. It led to the control of production and to a regimentation of the individual farmer. It led to such absurdities as the government withholding food which it later had to dump. At this minute in the face of a record crop of livestock, people in many parts of New York City cannot buy meat. That is part of the record of attempted price control.

President Roosevelt, writing of the coming "Census of Business," said, "This may be the peak year of production for many years to come."

Aggravated by the resigned, do-nothingness of an administrative defeatist complex. This may be quite true. Cessation or the slowing down of production of materials for war is certain to be felt. But the nation would be much better off if those in control said, "Sure, it will be felt, but think how much better it will be to produce for use than for destruction. Let's get busy."

Unlike political administrations which can be changed, the practice of medicine must always be intelligent and honest. The medical profession must advocate only proposals that it is sure will result in the health and welfare of human beings. As a result of this honorable attitude the Medical Society of the State of New York has officially committed itself to the proposition of voluntary medical expense indemnity insurance. It believes that when medicine deals directly with the people themselves on a purely voluntary basis that safety and security for both will result.

Detroit Edison, bewildered and confused, has taken its tax troubles to court. The Company, with the \$10,000,000 in hand it admittedly owes, prays the court to tell it into which outstretched hand to put the money. The Federal Government, the City of Detroit and Michigan's Public Service Commission are interested in this tax mixup.

In his first campaign speech,—at least so it seems to us—the candidate seeking a fourth term—came dangerously close to insulting the intelligence of his radio audience.

# Fabricating Perfection

## MOVES ERECTION OPERATIONS ACCORDING TO PLAN

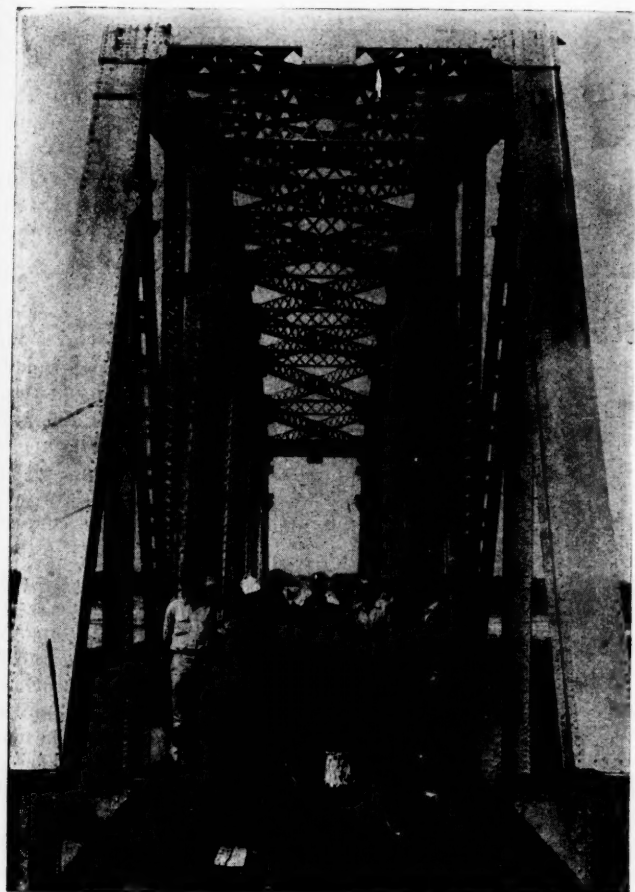
A voluntary report from the General Contractor on the erection of the above bridge span reads:

*"Not a hole to ream nor a rivet to cut out in the erection of the 250-foot railway truss span which you fabricated for us in your Memphis plant."*

What is this quality of fabricating service worth to you? It means savings in time, expense and worry—it means your erection operations can proceed according to plan.

During the many years we have furnished and erected steel highway and railroad bridges, accuracy in every engineering and fabricating detail has become traditionally associated with our name.

Today the accumulated resources responsible for this production efficiency enable us to better serve the war effort in many ways—even including high-precision military equipment. Soon, we hope, these same resources can be serving you on post-war construction projects.



250-foot railway truss span, Washita River Bridge, for relocation  
St. L.-S. F. Ry. line, near Denison Dam, Okla.

## Virginia Bridge

STEEL STRUCTURES  
ALL TYPES



VIRGINIA BRIDGE COMPANY

Roanoke

Birmingham

Memphis

New York

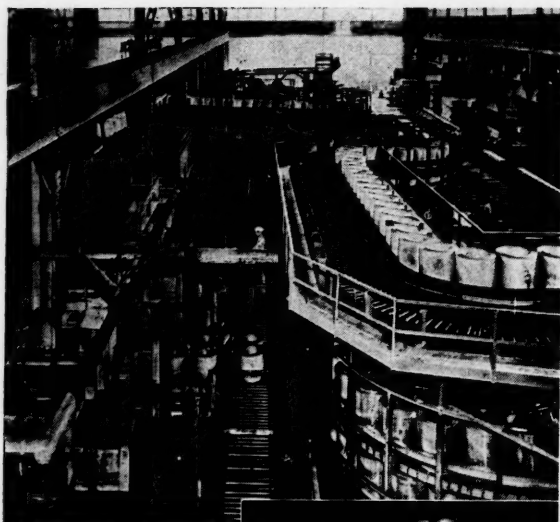
Atlanta

Dallas

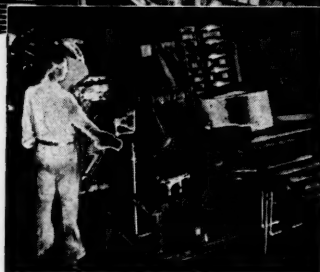
UNITED STATES STEEL

OCTOBER NINETEEN FORTY-FOUR

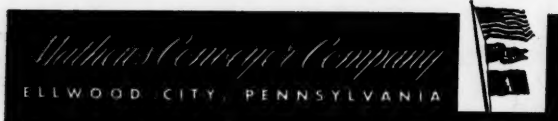
11



## PUT MATHEWS METHODS INTO YOUR POST-WAR PLANS



The need for special devices in conveying systems, increased during these war years of fast and tremendous production, has found Mathews Engineering ready and eager for the job. Frequently, the conveying problems have been entirely new. Always, they have been different in some respects from even the most similar jobs in the past. The conveyers were needed quickly and the need was great. To meet this need, Mathews Engineers and production personnel have hammered away steadily, meeting these problems as they came, and solving them. As a result of this activity—these new problems—these special devices which were developed—many years of experience have been packed into a short while. That is why Mathews methods are up to the minute. This experience is available, through the Mathews Field Engineer, in all principal cities in the United States and Canada.



12

10

## BAMBOO PRESENTS POSSIBILITIES

Its versatile values have long been known but only recently have experiments indicated ways in which bamboo might profitably be cultivated in the States and necessarily in the South.

"Profitably" is the right word, for bamboo has many uses. The Orient has demonstrated its application as a raw material, even as a food, in numerous ways over uncounted centuries. From roofing material to fences to furniture to novelty articles, bamboo is as widely used by the Orientals as rice.

As a food, bamboo sprouts are not regarded highly by those who have tried them in the kitchens of this country. The Chinese, not having the numbers and quantities of food available, have utilized bamboo extensively, but for our more cultured tastes it does not have an appetizing excellence.

A few varieties have struggled along in the West Indies, the Southern States and some as far north as Washington, D. C., but *Bambusa Vulgaris*, the type most commonly found, had canes (or culms) which were comparatively soft and weak and susceptible to boring insects.

Researchers set out to find or develop a variety which would resist these borers, chiefly the tiny powder-post beetle, *Dinoderus minutus*, and which would do best in this country. Yet species of *Dinoderus* were prevalent in the Orient, so a number of Far Eastern species were imported and experimented upon, chiefly in Louisiana and Georgia. At the start, little of bamboo taxonomy was available, but of late several more or less reliable classifications and conclusions have emerged.

*Bamboo Vulgaris* was put to the severest tests and those conditions causing it the most trouble were then applied to the imported varieties. *Bamboo Tulda* especially and *Dendrocalmus strictus* secondly were found so resistant to borers that little or no damage resulted. Such little trouble as is caused by scale insects may be easily controlled by the implanting of *Coccinellid* beetles in the clumps. These beetles are insatiable in their eating of the insects and leave the plate clean.

After such precautions are taken, bamboo flourishes in the lower South. Its yield is dramatized in certain comparisons made by Edward McIlhenny of Avery Island, Louisiana. A good stand of Canadian spruce 80 years old yields about 18 tons of pulp per acre, an average acre of Southern pine 20 to 28 years old yields about the same, while some bamboos, according to Mr. McIlhenny, after 6 years of growth will yield more than either spruce or pine in pulp. The tremendous advantage afforded by bamboo is that after the initial 6 years it produces a similar yield annually. Pulp men are not unaware of these possibilities in bamboo, nor are certain agriculturists and foresters.

MANUFACTURERS RECORD FOR

OCT



# They're Cutting Sanding Time 83% with SKILSAW BELT SANDERS

AT DURAMOLD DIVISION OF FAIRCHILD ENGINE AND AIRPLANE CORP.



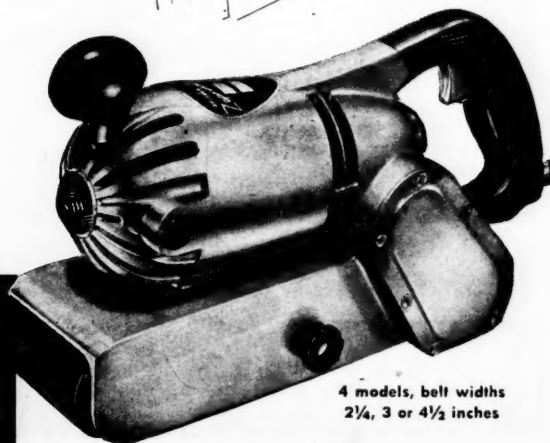
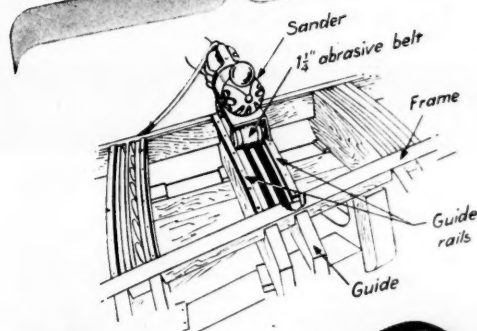
DURAMOLD Photo shows SKILSAW BELT SANDER in jig which won suggestion award for the designer, Albrecht Halbig.

**A former 3 to 4 hour job for 2 men is a ONE HOUR JOB for ONE MAN with a SKILSAW BELT SANDER in a special jig**

Stepping up finishing work on aircraft stabilizer frames is just one more example of how SKILSAW BELT SANDERS *do more jobs better!* In or out of a jig, on any flat and on many curved surfaces, SKILSAW BELT SANDERS do a cleaner, ripple-free finishing job faster and easier.

They pack plenty of power for round-the-clock production. They're light in weight, streamlined, handle easier in any position. And there's an extra measure of quality features in every SKILSAW BELT SANDER to give you low-cost operation longer.

If you work with wood, plywood, compositions or metal, find out the many ways SKILSAW BELT SANDERS can save time, money and manpower in your plant. Your distributor will show you on your own work. Phone him today.



4 models, belt widths 2 1/4, 3 or 4 1/2 inches

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OCTOBER NINETEEN FORTY-FOUR

**BELT LACING  
and FASTENERS**  
for transmission  
and  
conveyor belts

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**ALLIGATOR**

Trade Mark Reg. U. S. Pat. Office

**STEEL BELT LACING**

World famed in general service for strength and long life. A flexible steel-hinged joint, smooth on both sides. 12 sizes. Made in

steel, "Monel Metal" and non-magnetic alloys. Long lengths supplied if needed. Bulletin A-60 gives complete details.

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**BELT FASTENERS AND RIP PLATES**

For conveyor and elevator belts of all thicknesses, makes a tight butt joint of great strength and durability. Compresses belt ends between toothed cupped plates. Templates and FLEXCO Clips speed application. 6 sizes. Made in steel, "Monel Metal", non-

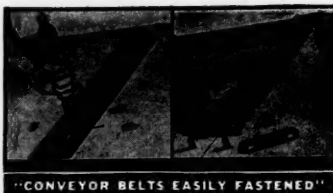
magnetic and abrasion resisting alloys.

By using Flexco HD Rip Plates, damaged conveyor belting can be returned to satisfactory service. The extra length gives a long grip on edges of rip or patch. Flexco Tools and Rip Plate Tool are used. For complete information ask for Bulletin F-100.

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"CONVEYOR BELTS EASILY FASTENED"

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**MARSH**

## LOUISIANA SHIPYARD BUILDS SUPER TUGS

Not only small plants but small shipyards are pulling their weight in the Maritime Commission's overall production race. One such yard is the Avondale Marine Ways, Inc., of Westwego, La., which recently received the coveted Maritime "M" pennant and Victory Fleet Flag in recognition of outstanding achievement in support of the war effort.

Avondale builds V-4 seagoing tugs and N-3 coastal cargo vessels, and launched the first seagoing tug built in the United States in August 1942. It turned out four more before any other shipyard had built one. During this same period Avondale repaired 501 pieces of maritime equipment and brought 18



*The V-4 Tug SEGUIN, built by  
Avondale Marine Ways, Inc.,  
Westwego, La.*

LST's up to Navy class requirements following their shakedown cruises.

These tugs are powered by two Diesel engines that generate 2,250 h.p., and carry enough fuel to remain at sea for 75 days. They have an overall length of 194 feet, 9 inches with a draft of 17 feet. No commercial tug has ever before been built to dimensions as large.

Mechanical innovations successfully tried out in the V-4 tugs include connection of the twin engines by a magnetic coupling so only one propeller shaft is needed, and a Kort nozzle that concentrates sea water at the propeller, increasing propulsion power by about 15 per cent.

At least four of the V-4's participated in the invasion of France, while others have made tows to far quarters of the globe and performed salvage operations at sea that will add glowing pages to the saga of America's Maritime Service at war.

MANUFACTURERS RECORD FOR



COAL  
 OIL  
 PRODUCTS OF AGRICULTURE  
 IRON ORE  
 LIME  
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Compressed in this one section of our country is a vast store of natural wealth  
—all the needs of varied manufacture!

Here are the basic requirements of the chemical and steel industries. Here are the minerals for light metals...the mineral, agricultural and forest sources of plastics. Here is a plentiful supply of water, free of impurities...intelligent, loyal, American-born industrial and agricultural labor.

In short...here is a frontier that calls urgently to those who would make the most of the expanding horizons of tomorrow.



Address Development Department, Kansas City Southern Lines, 114 W. Eleventh, Kansas City 6, Mo., for detailed information.



# THOMAS TRUCK of Keokuk



THOMAS MAKES



4 WHEEL TRUCKS



2 WHEEL TRUCKS



CASTERS



RUBBER WHEELS

Safety One Man

## BARRELL TRUCK

NO. 90

- Trucker never touches barrel.
- Automatic loading and unloading
- Sliding two-in-one chime hook
- Safe—no backstrain
- Balanced—truck carries load
- Easy rolling—Hyatt bearings
- Lifetime use—welded steel

### A Cinch for One Man

Safer, faster, easier way for one man to handle barrels, drums, kegs up to 1000 lbs. Chime hook engages rim and cast steel prongs slide under drum instant trucker pulls truck back. That's all there is to it! Rubber tired wheels.

Write for New Catalog No. 43

THOMAS TRUCK & CASTER CO.

449 Mississippi River, Keokuk, Iowa



MOVE MATERIALS FOR WAR AND PEACE

## IN *Fulton* WATERPROOF COTTON AND BURLAP PAPER LINED BAGS

In these times bag production is war production. Our plants have supplied millions of sand bags as well as various other items for use in combat areas. Behind the lines, supplies of food and other material are transported thousands of miles in bags specially designed to protect contents against hazards of rough handling, moisture and insects. Back here at home bags must move a long list of essential commodities ranging from small machine parts, through dozens of items of food, feed and produce to the hygroscopic chemicals requiring special waterproof packages. Many Fulton Waterproof Paper Lined Bags are replacing containers made of critical materials—metal drums, wooden boxes and barrels.

The output of our plants will continue to be devoted to these essential requirements until Victory itself is "in the bag."

## FULTON BAG & COTTON MILLS

Manufacturers since 1870

Atlanta Minneapolis New York St. Louis New Orleans Dallas Kansas City, Kan.

## FISHING IS BUSINESS TOO

The fish industry today suffers growing pains which assure it a husky manhood when peacetime relief from restrictions permits the attainment of full growth.

In pre-war days the nation's per capita consumption of fish was only 13.3 pounds, while Canadians ate more than twice as much, a bad comparison occasioned by our general indifference to seafood. In 1943 the average consumption was still less, about 8.9 pounds, but distributing points complained of their inability to supply more than a fraction of the multiplying demand.

Despite the industry's difficulties, the War Food Administration has set a 1944 goal of 5.3 billion pounds, even though the all-time record (1941) was over 1.5 billion pounds less. Fishermen are struggling to meet the quota and are not lacking in confidence. In 1942, the haul fell to 3.716 billion pounds but in 1943 had jumped back up to an estimated 4.048 billion pounds.

The increase in demand has likewise built up prices. The estimated value of the catch in 1943 was \$182,668,000, almost twice the 1939 sales of \$98,957,000.

Until recently this fine protein food was popular mainly along the coasts. The 1943 consumption in these sections was about 32 pounds annually per capita, the inland areas bringing the national average far down. But today this latter region is "going for" this food from the waters.

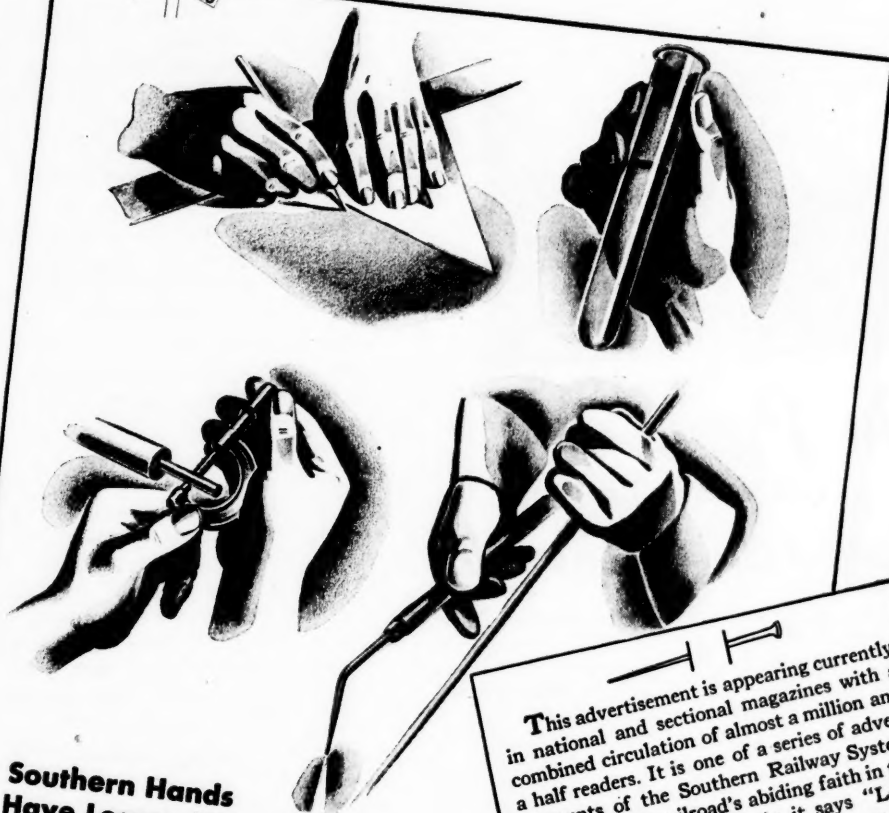
In 1943 Chicago receipts increased by 16 million pounds, 23 per cent over the preceding year. 84 million pounds of fresh and frozen fishery products distributed there consisted of 51 per cent fresh water fish, 35 per cent from salt water and 14 per cent shell-fish.

Over the country as a whole, pilchards lead in poundage caught. Menhaden come next, followed by salmon. The combined catches of these three amount to more than half the total production of the United States and Alaska. Salmon, however, ranks as the leader in dollar value.

Public demand nowadays is not confined to the well-known products of the trade, and this more diversified consumption has, according to one estimate, resulted in 10.5 million pounds of seafood normally wasted going into consumer channels. Extensive experimentation in bettering smoking methods and perfecting dehydration promise an even more widespread future use of fish foods of many kinds.

MANUFACTURERS RECORD FOR

LOOK SOUTH  
LOOK AHEAD



## Southern Hands Have Learned New Skills

This advertisement is appearing currently in national and sectional magazines with a combined circulation of almost a million and a half readers. It is one of a series of advertisements of the Southern Railway System expressing this railroad's abiding faith in the territory it serves. Proudly it says "Look Ahead...Look South"...for new and greater opportunities for all in the Southland when final Victory has been won.

**T**HOUSANDS upon thousands of Southern workers are going to school today. Their classrooms are great shipyards...airplane plants...steel and aluminum plants...powder factories...arsenals...war-busy plastic and chemical industries...where they are learning the myriad skills of modern industry.

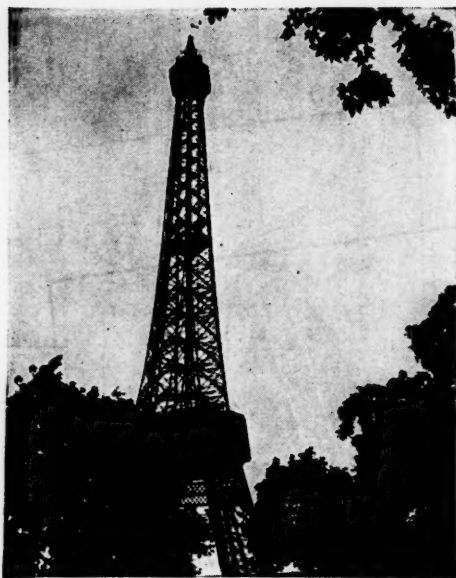
And on the trains and tracks, in the offices and shops of the Southern Railway System, we're learning new skills too... how to move more tons of freight, more thousands of passengers.

We're learning how to do our job more efficiently than ever before.

So, after the war, when you "Look Ahead—Look South," you'll see an army of strong, capable, level-headed American workers—including plenty of highly skilled craftsmen—pulling together to make the Southland's dreams come true.

*Ernest E. Harris*  
President

**SOUTHERN RAILWAY SYSTEM**  
The Southern Serves the South



## In Paris . . .

LAYNE WELLS AND PUMPS

### *... are still on the job!*

Surviving the days of ruthless enemy occupation, Layne Wells and Pumps are still on the job! With the exception of some cases of sabotage or wilful enemy destruction, those Layne Wells and Pumps are still producing somewhere near 90,000,000 gallons of water daily.

The Paris wells are 3,000 feet deep, with their corrosive proof, Layne built shutter screens set in the famed green sands formation. They were installed in 1928-29 by Layne-France Company, one of Layne's many affiliated companies. The city officials of Paris, after thorough investigation, selected Layne Wells and Pumps from a field of the keenest world-wide competition. Their confidence in the equipment has been more than justified.

Today in liberated Paris, rebuilding is already under way, but little or no work will be required to keep Layne Wells and Pumps spinning merrily along and producing ample quantities of water.

Layne Well Water Systems have also made great records in other war zones; Dakar, Tunis, Casa Blanca and London. They have long lasting quality that more than amply fits them for any peace-time need.

For late literature, address Layne & Bowler, Inc., General Offices, Memphis 8, Tennessee.

AFFILIATED COMPANIES: Layne-Arkansas Co., Stuttgart, Ark. \* Layne-Atlantic Co., Norfolk, Va. \* Layne-Central Co., Memphis, Tenn. \* Layne-Northern Co., Mishawaka, Ind. \* Layne-Louisiana Co., Lake Charles, La. \* Louisiana Well Co., Monroe, La. \* Layne-New York Co., New York City \* Layne-Northwest Co., Milwaukee, Wis. \* Layne-Ohio Co., Columbus, Ohio \* Layne-Texas Co., Houston, Texas \* Layne-Western Co., Kansas City, Mo. \* Layne-Western Co. of Minnesota, Minneapolis, Minn. \* International Water Supply, Ltd., London, Ontario, Canada.



## WELL WATER SYSTEMS

### DEEP WELL PUMPS

## REACTION TO TAX EXEMPT COOPERATIVES

Six hundred Southern business and industrial leaders met in Memphis last month under the sponsorship of the Memphis Chamber of Commerce and voted their unanimous indorsement of the National Tax Equality Association's campaign against rapidly-expanding, tax-free, Government-aided co-operatives in competition with private enterprise.

The luncheon meeting, one of the largest ever held in Memphis, almost over-flowed the spacious Peabody ballroom as the delegates heard co-operatives branded as "a growing threat to private business that is both unfair and subsidized."

The essence of their arguments was that co-operatives, which are now entering many fields of business and manufacture, should be taxed the same as private corporations.

It was the recently announced far-flung Southern Consolidated Co-operatives, Inc., fostered by A. D. Stewart, regional director of the FSA at Little Rock and since disclaimed by him as "a proposal rather than a plan," that brought about the worried meeting. The Stewart proposal (or plan) contemplates a huge super co-operative operating in nine Southern States. It would engage in numerous lines of business, from cotton ginning and furniture manufacturing to casket making and insurance and the construction of prefabricated houses.

"Despite denials, I believe the Southern Consolidated Co-operatives is already operating," said G. M. Lester, prominent cotton man of Jackson, Miss. and chairman of the meeting. "I don't believe the people of Mississippi, the patriotic farmers, want to introduce a Russian system of economy in America."

"The lines are now being formed," said H. Vernon Scott, executive vice-president of the Association, "that will determine if the American system of free enterprise is to survive or if an adventurous new order is to be pushed upon us. The co-operatives," he went on, "are privileged competitors of private business enterprise, exempt from Federal income taxes that business must bear and permitted by law and bureaucratic regulation to receive many favors."

A word of caution was injected into the meeting by Oscar Johnston, director of the Staple Cotton Co-operative Association of Mississippi. He pointed out the unselfish nature of certain co-operative endeavors.

"When the Staple Cotton Co-operative Association was being organized," said Mr. Johnston, "the matter of any sort of tax exemption or special privilege was not discussed." But, he continued, "co-operatives may seriously impair their usefulness, if not actually destroy themselves, if they insist on special privileges, the receipt of which places them in the category of beneficiaries of unjustified governmental bounty at the public expense."





*"What Enriches the South Enriches the Nation"*

## L'etat, c'est moi

The MR is a magazine compiled and edited for business men. It is not interested in partisan politics as such. It is vitally interested in the development of a great section of the Nation because the progress of the South plays so large a part in the welfare of the entire Nation. It believes that progress in America can only be assured through the efforts of a free people, free to use their individual creative initiative and ability.

The MR is unalterably opposed to a fourth term for the present incumbent of the United States presidency. It is not opposed to the Democratic Party and in favor of the Republican Party as such. It is opposed to any form of state socialism and to federal strangulation of business.

The person who has wrested the control of the Democratic Party from true Democrats and perverted it to the tenets and doctrines of Socialism or worse, should be, and must be, removed from the White House by the peaceful, orderly and democratic method of the ballot. This is the traditional American way.

Mr. Roosevelt should be refused a fourth term because he has conclusively proved to any thoughtful and open minded man that he is not willing to administer the affairs of the government according to the laws of the land but instead attempts to set himself above those laws. In other words he believes in government by man (as long as he is the man) instead of by law.

Mr. Roosevelt has proved by his actions that he believes in complete centralization of power and authority in the federal government and his conception of that government is one man sitting in the White House surrounded by a sycophantic court which flatters and fawns.

Mr. Roosevelt has proved by his actions that he believes there are two separate economic classes in America, those who work with their hands and those who work with their brains. We believe that every normal man has both hands and a head. Talents may, and do, differ between individuals, but freedom of opportunity to develop his talents should be equal, and that opportunity should be limited only by the capacity of the individual for his own development.

Mr. Roosevelt has proved by his action that he believes in the Machiavellian idea (Hitler did not invent it) of divide and rule. He thinks of citizens as classes and groups and not as fellow Americans.

Mr. Roosevelt has proved by his actions that he believes that he is better able to rule the United States of America than Americans are able to govern themselves under the constitution.

Mr. Roosevelt has proved by his actions that he believes both the Congress and the courts of the land should be subservient to his wishes. He has thus sought, and at different times, succeeded in making both Congress and the Courts vassals of the executive.

Mr. Roosevelt has proved by his actions that he is incapable of surrounding himself with capable associates. He does not think of such men as "associates." He thinks of them as "assistants."

Mr. Roosevelt has proved by his actions that he believes himself to be commander-in-chief of every citizen in this powerful nation. He does not see himself as the servant of a great peace-loving people.

In short, Mr. Roosevelt has proved by his actions that he believes, as Louis XIV did in 18th century France: "L'etat c'est moi." We believe that America belongs to all of us, that four terms are too many for any man; that if America is to remain the land of the free it is necessary to change presidents.

# Wipe the Slate Clean

The subject of taxation is not a pleasant one. It is the sort of subject about which all of us would rather not think. For this reason it has been left to the "experts," and the patchwork quilt of present tax laws (we used to call them crazy quilts in our boyhoods) is the result.

The time has come when we can no longer afford to bury our heads in the sand and refuse to look at the problem of taxes. It is time for us to recognize the fact that this problem can not be solved by "letting George do it." We must think about it ourselves so that, out of a composite of our individual opinions, legislators may be able to shape a new law that is open and fair to every taxpayer, and by taxpayer we mean every man and woman who lives and breathes in America. We are all taxpayers.

No less an authority than the President of the United States when he was running for office the first time said in Pittsburgh, on October 9, 1932: "Taxes are paid in the sweat of every man who labors because they are a burden on production and are paid through production."

Additions to our existing tax laws are but adding other patches to the crazy quilt. Changes in them are merely substituting one patch for another. It is not only time for a change. It is time to start with a clean slate. It is time for simplicity and fairness. It is time, we think, for a consumers' sales tax.

One of the many misconceptions about the working of a consumers' sales tax is that it places an undue burden upon the poor. This is a misconception fostered by ignorance, ignorance aided and abetted by the tangible act of paying a tax and knowing that it is a tax.

"We can't tax the bread out of a poor man's mouth" has been a popular political argument against a sales tax for a longer time than men now living can remember.

How much truth is there in this slogan? Just about as much as there is in any slogan that is invented to mislead the unwary and unthinking—and that is: just none at all.

Take the case of the loaf of bread. It is about the cheapest, in the sense of nutritive value received, of any staple food. It is always used as the example of the poor man's food when breast beaters beat their breasts and thump their tubs on behalf of the down-trodden—and on behalf of themselves.

How much of the present price of a loaf of bread is now made up of concealed taxes under existing laws? A cursory glance at the course followed by wheat, the main component of bread, before it becomes bread on your table, will give some idea of the size of the tax bill that the loaf now bears.

Wheat has to be grown. The farmer, be he an individual or a large agricultural corporation (and there are many such) pays an income tax.

The wheat has to be stored and later shipped to a flour mill. Income taxes are collected from the businesses that supply these services.

At the mill the wheat is ground into flour. The

mill (in most cases a corporation) pays an income tax.

The wheat, now in the form of flour, must again be stored and again transported to the manufacturer who then uses it as the basic substance in the manufacture of bread. These storage and transportation businesses also pay an income tax. The bread maker pays an income tax too.

Last, but by no means least, the retailer, who in many cases is a great chain store corporation, sells the bread to its consumer, and his income tax figures into the price charged to the man, woman or child who buys the loaf, be they rich or poor.

It must also be remembered that the value of the grain of wheat in its passage from stalk to bread is enhanced by every stage through which it passes and that it is also increased cumulatively by the income tax imposed at every such stage.

Many of us do not have to stretch our memories to recall when a loaf of bread sold for five cents (two loaves of day old bread for a nickel). Grains of wheat were made into loaves of bread in the same way then as they are now. Modern methods of farming, storage, transportation, milling and manufacturing as well as retailing should have reduced the cost of bread, not increased it. It seems fair to assume that a not inconsiderable part of this increase is due to a pyramiding of concealed taxes. At present adults and children alike, rich or poor, eat bread at eleven cents a loaf. They should be made to realize that when they buy that loaf they are paying taxes. That realization will become a part of their daily lives if they pay ten cents for the bread and one cent in a direct tax when the purchase is made.

If an income tax at a fixed rate for every taxpayer (not at a graduated rate which penalizes success) is needed to supplement the income of government such a tax can be incorporated in a law that would include a consumers' sales tax. The rate of such a fair income tax law can be changed from year to year to meet fluctuations in annual national income just as the rates for various classifications of goods can be changed annually for the consumers' sales tax.

We think that it is time to start our tax thinking with our minds cleared of the hodge podge of graduated income tax laws, excess profits laws, capital stock tax laws, etc., as they exist today. The slate of our minds should be wiped clean so that our tax thinking and the plans that such thinking will evolve may be based on fundamental ideas.

Tax laws should not be as complicated as they are now. They should not be complicated at all. They should be so simplified that any grade school child can understand them. They should be so easily administrable that any shop keeper or business man can collect them. They can be made so if our law makers start from the basic premise that the primary purpose of taxation is to raise the revenue necessary to conduct and carry on the affairs of government.

Let's wipe the slate clean and then build our tax structure on a foundation of sound thinking, and erect it with clean and tested material.

# INCENTIVE — the Heart of Private Enterprise

*Condensation of talk by James F. Lincoln, President of the Lincoln Electric Co., Cleveland, Ohio, before a luncheon meeting of National Economic Council, Inc.*

It would be interesting to see what penalty would be meted out to a foreign saboteur if, by plan, he handicapped American war industry to the same extent as has been done by the application of our own government's bureaucratic edicts, as exemplified in the experience of our company.

The facts are almost unbelievable, as they occurred, but are easily understood when it is remembered that bureaucrats must make a rule for industrial operation and then force all conditions to follow the rule, regardless of results.

The action taken by the bureau punishes efficiency of production to a point where if it had been planned by an individual in wartime it would be treasonable. The facts in the case are as follows:

An assessment of \$1,600,000, which had been paid as incentive wages, was made against the company for the years 1940 and 1941. The reason given by Jesse F. Gregory, head of the technical staff of the Treasury Department in Cleveland, who has the case in charge, was that we had paid our men too much. The statement was made that "no man who works with his hands can be worth \$5,000 a year", which was our average payment of total wages.

Mr. Gregory admitted that our labor cost per piece was a fraction of that obtained by our competition but the compensation was still too much since the class of worker involved (manual worker) cannot be paid that amount, no matter how efficient.

As a matter of fact, the incentive

system has been in use at the Lincoln Electric Company for over twenty years, so it is not a "war baby." This plan, by its effect of lowering the cost of welding equipment, has saved the Government \$150,000,000 since Pearl Harbor. Its result over the last ten years has been a wide increase of efficiency by which the selling price of the product was reduced by over 60% and, hence, the product sells for a fraction of the price of any comparable product, in any comparable industry.

Because of the low cost of production, we were assessed further by the Price Adjustment Board \$3,250,000 for the year 1942. In the year in question, the rate of profit was less than in any previous year and the net profit on four times the

amount of production was less than pre-war profit. The company was told also by the Price Adjustment Board that if we increased our efficiency of production further, the assessed penalty would be increased to eliminate all consequent savings.

It is interesting to note that our competitors were not renegotiated on the product involved. We also would not have been renegotiated had we been willing to reduce our efficiency sufficiently to increase the cost to the government, after taxes, by approximately 35%.

In fairness to the bureaucrats involved, it should be stated that this probably is the application of a rule handed down to them from above. It probably does not represent the personal opinion of the people who apply the rule.

*Resolution adopted at conclusion of James F. Lincoln's speech before National Economic Council Inc.*

## RESOLUTION

RESOLVED: It is the sense of 450 American citizens assembled in New York City this twenty-first day of September, 1944, that the Treasury's refusal, described to us by Mr. James F. Lincoln, to allow incentive wage payments as legitimate items in manufacturing cost, constitutes a dangerous threat to all incentive systems.

And, since incentive is the mainspring and heart of the American system of private enterprise, we register our protest with the Treasury and with our representatives in Congress; and by this Resolution we petition the Congress forthwith so to amend the Internal Revenue Code as to stipulate clearly that wages paid to stimulate production or to increase efficiency shall not be penalized by taxation.

## MINUTE OF INTERPRETATION

We believe that there is no top rung on the ladder of success. We believe that there is no ceiling on America. We believe that there must be no ceiling on Americans. We believe the laborer is worthy of his hire. We believe that a man should get what he produces and should be paid for all that he produces and should be paid to produce more. Therefore, we object—not in behalf of American industry, but in behalf of the American working-man and his wife and his children and his hopes and his dreams and his ambitions for them—that no government has any moral right to penalize an employer for paying his workers what a worker earns.



By McL. SMITH  
of  
Manufacturers Record Staff

# TOBACCO,

## Depression-proof Commodity

**T**OBACCOLAND is marketing its biggest crop since 1929, and is reaping the greatest harvest of dollars from the "weed that cheers" in the entire history of southern agriculture. Hand-in-hand with the wealth that will accrue to farmers of the South there will go to southern industry and commerce an equally impressive flow of currency. for, industrially, tobacco is a golden giant of the South, ranking close to the manufacture of cotton textiles, clothing and food processing.

The history of tobacco, agriculturally and industrially, is one of great significance in the economic structure of the South. A brief review of that history is timely. Had the Spanish *Conquistadores* who followed Columbus, mad in their search for gold, foreseen the vast wealth-producing potentialities of tobacco it is possible the whole course of the western hemisphere would have been different. Spain perhaps would not have so easily relinquished her holdings on this side of the Atlantic. Since 1795 the United States mint has coined slightly over \$4.5 billion in gold, little more than the Federal excise tax collected on manufactured tobacco in the past six years.

Some tobacco was cultivated by the early settlers in New England and Pennsylvania, but the real growth of the industry was westward and to the South. By 1795, production in Kentucky and northern Tennessee was of considerable importance, and became decidedly prominent along about 1810. In that year warehouses were established in Kentucky and Tennessee. In the same period, 1795-1810, tobacco was widely cultivated in Virginia, and spread rapidly over into North Carolina.

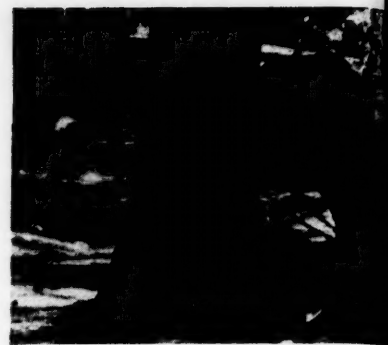
In 1852 a lemon-yellow tobacco produced in Caswell County, North Carolina, met with almost instant favor. Its cultivation rapidly spread

to other portions of the state as well as to Virginia. That same basic stock, today called bright leaf, is the most widely grown of all varieties.

During the War between the States the tobacco industry, agricultural and manufacturing, was practically wiped out. Bureau of Census records reveal that in 1860 approximately 65 per cent of all tobacco manufacturing was done in the South with the output of the entire industry just short of \$31 million. At that time acreage was around 40,000. During the next nineteen years southern acreage advanced beyond 50,000, and by 1880 manufactures for the entire nation were valued at \$96.7 million, but only 34 per cent came from factories located in the South. In 1943 southern tobacco acreage was nearly 1.3 million.

At the turn of the century the value of tobacco manufactures had passed the quarter-billion mark, but only 80.5 million came from factories in southern states. It is at this point that we find the tobacco manufacturing industry definitely retracing its steps to the South, source of its raw materials. However, it was not until the decade 1920-1930 that more than half of the industry had returned to southern

*It's hot in the curing barn. 180 degrees is about right.*



section of the country.

In 1920 value of manufactures passed the \$1 billion mark by nearly \$13 million, 47.6 per cent produced by southern factories. Two years later slightly more than half of the output was from southern plants and by 1930, when manufactures were valued at \$1.25 billion, 73.1 per cent was turned out by southern manufacturers. The next decade saw a slight recession in the South to a percentage of 70.6. Internal revenue collections for the year 1943 indicate that 89.5 per cent of tobacco manufacturing is now concentrated in the southern states.

There is no reason to believe or to predict that eventually all of the tobacco industry will be located in the South. So much of it is already there that it can be considered a southern industry—one that can be depended on as a source of wealth for centuries to come. It is an industry that has brought prosperity and financial stability to countless farmers and industrial workers. A study of Bureau of Census reports over the years gives solid reason to believe that agriculturally and industrially tobacco is depression-proof, something which cannot be said for any other marketable commodity. Throughout the years income from farm sales of tobacco and the value of its manufactured products have steadily increased, with one slight exception—from 1930 to 1932 there was a decline of about seven per cent for both farmer and manufacturer.

In 1943 the southern farmer received nine per cent of his cash income from tobacco. Preliminary reports of the U. S. Department of Agriculture indicate it might go as high as 12 per cent in 1944.

Last available Census figures (1939) indicate tobacco manufactur-



ing in the South is surpassed only by the food, cotton textiles, petroleum and coal industries, none of which can lay claim to being "depression proof."

Agriculturally, tobacco has its problems of weather, particularly hail storms, and insect pests, but it does not suffer as severely from these natural enemies as do other crops. The South has vivid recollections of the mass devastation to cotton by the boll weevil. Tobacco has never suffered a similar fate. Oddly enough, it was the inroads of the boll weevil which caused farmers of the South to increase tobacco acreage at the very time when the demand for tobacco was growing at a greatly accelerated pace.

There have been many attempts to discover the reasons for the vastly increased consumption of tobacco, but thus far there has been no one explanation that will stand alone unless it be the improvement of the plant itself, coupled with constant effort by manufacturers — studies of taste, improvement of finished blends and exploitation of foreign markets. In the latter there has been remarkable progress, especially in the sale of cigarettes. The American Doughboy took his favorite cigarettes to England and France in 1917-18. They proved so superior to those made in the European countries that despite high English tariffs and government monopoly in France, our cigarette exports since 1918 have multiplied yearly until the present war disrupted exports. Cigarettes and other tobacco products have high positions in the lend-lease program.

In Colonial days the golden leaf served as a form of currency, early settlers even paying ship passage of their brides with hogsheads of tobacco. History repeats itself; to-

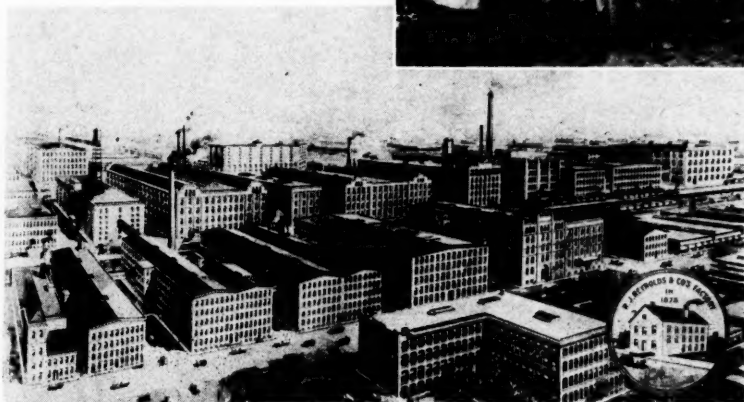
bacco is serving as a form of currency today. Our troops in the Southwest Pacific area find American tobacco readily exchangeable for poultry, fresh fruits and vegetables and other native delicacies which do not appear on G. I. menus. Natives of the islands that we have taken from the Nips much prefer our flavorful products to any gold or silver currency that G. I. Joe might offer. With the coming of peace American tobacco manufacturers will have in those countless islands new profitable markets, created by our armies of liberation.

Searching out records on tobacco production, consumption and income, we run into figures of almost astronomical proportions, and in the search, no effort was made to go back prior to 1860, not quite 85 years. In that time it is readily established that the "weed," given but passing attention by early European explorers, has circulated a stream of wealth far greater than all the gold now stored in the vaults at Fort Knox. As the stream of wealth has flowed it has lessened the tax burden of the individual, for tobacco has been a prolific source of

(Continued on page 80)



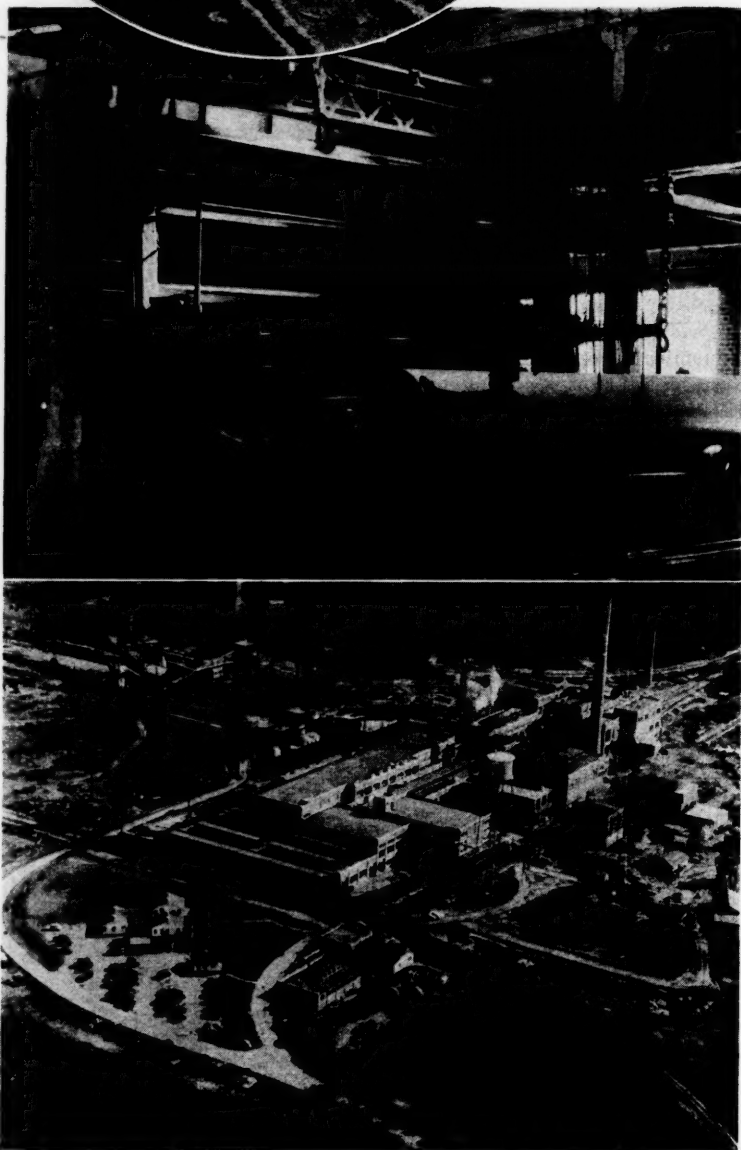
In a shady grove, workers (upper) prepare tobacco for curing. The heavy, gummy leaves (above) are cropped by hand and transferred to mule-drawn sleds. The whole family and all hands (below) are busy looping "hands" of tobacco to smooth sticks. The R. J. Reynolds plant at Winston-Salem, covering 129 acres, is one of the world's largest tobacco processing centers. Inset is the Reynolds plant in 1875.





*Barked pine logs, left, at Lufkin, Texas, mill, only mill in the South now manufacturing newsprint. Center, interior view of Lufkin mill, showing a major step in newsprint manufacture. Over-all view, bottom left, of the present Texas plant.*

## PUBLISHERS PUSH NEWSPRINT PLANS



"SOME day the manufacture of paper in the South will rival the production of cotton," Roger W. Babson famed business expert predicted back in 1937. That prophesy, because of the tireless energy of a group of southern newspaper publishers, the wonders of the science of chemurgy and abundant basic raw materials, is destined for fulfillment.

In the southern states there are millions of acres of pine forest, slash pine and stumpage, that can supply the world's needs of paper. By this is meant all grades of paper and not just newsprint. This is an answer to the fast-dwindling supply of spruce in Canada. It takes 50 years to grow a spruce tree to pulp size. Southern pine reaches a suitable size in ten years. Thus we see nature supplying the paper mills destined to be built in the South with a perpetual flow of raw material. The forests of the South are being rediscovered, foreshadowing social and economic effects that are not now appreciated.

The pulp and paper industry is not new to the South. There were several mills there in the first half of the nineteenth century, using mostly rag stock. The first use of wood pulp from pine was in 1878 in a small mill at Marietta, Georgia, but some rag stock was mixed with the pulp. Mills erected at Roanoke Rapids, N. C., in 1909 and at Orange, Texas, in 1911, were the first to begin pulping operations entirely from wood, utilizing the sulphate or kraft process. Since then there has

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*pine forests  
of the South  
can supply  
paper needs  
of the nation  
for generations*

been a steady increase in the number of mills in the Southern states until now there are nearly 100, representing a capital investment in excess of \$210 million.

Among the thousands of uses of paper it would be difficult to put your finger on one and say, "This is paper's most important function in a normal, work-day world." But, if you leveled your digit at the newspaper—the press—there are few who could find reasonable grounds on which to dispute your decision. Picture, if you can, a day without your favorite newspaper, or a week without the magazines which bring you comprehensive information on the world of manufacturing, industry, science, and commerce.

Of the 4 million tons of newsprint produced in North America in 1943, 80 per cent was supplied by mills of Canada and New Foundland; 20 per cent by mills of the United States, and of the latter less than one per cent came from a southern mill, the comparatively small one in the little town of Herty near Lufkin, Texas. Right here, with this small production in view, coupled with the vast pine forests of the South, we begin to discern the enormous future for the newsprint industry in the South.

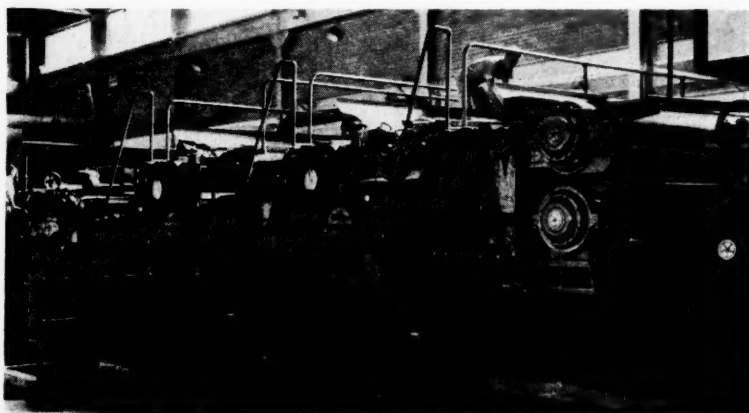
It is estimated that 12,000 tons of newsprint are daily required to meet the demands of American newspapers. On this basis 44 mills with a capacity of 100,000 tons per annum would be needed to meet the newspaper requirements of this country. Southern newspapers

alone could use the output of at least ten mills. It is evident that there is a wide open door for the expansion of this great industry in the South. It will bring millions in dollars and countless jobs to southern people.

The Southern Newspaper Publishers Association, composed of executives of leading newspapers in the southern states, has been untiring in its efforts to establish in the South an industry that by all the laws of economics rightfully belongs in the southern states. Basic raw materials for an endless period of time, climatic conditions favorable to paper production and an abundance of intelligent, native-born labor are factors that will assure success.

At present there is but one newsprint paper mill in the South, the one at Herty. A committee of the S. N. P. A., justly proud of the lone mill in Texas, have for months been assembling data on available sites for another mill. The Association is solidly behind the committee and no stone will be left unturned in efforts to print southern newspapers on products from the forests of the South. The day will come when the long-neglected pine of our southern hillsides and infertile fields will be converted into high grade newsprint in southern mills and used by the newspapers, not only of the South, but throughout the nation. It will be the materialization of Mr. Babson's prophecy of seven years ago.

*At Lufkin, pulp (below) is becoming newsprint as it passes through complex processes and machinery.*



**Texas Newsprint Plant  
Investment \$10,000,000**

The South's only plant for making newsprint is located at Herty, Texas, and was originally finished early in 1940 at an estimated \$6,000,000. Since that time expansions and additions have been made.

Latest enlargement was a \$3,000,000 chemical process wood pulp plant, which placed the Southland Paper Mills, Inc., operators of the plant, in a position to make chemical pulp previously purchased.

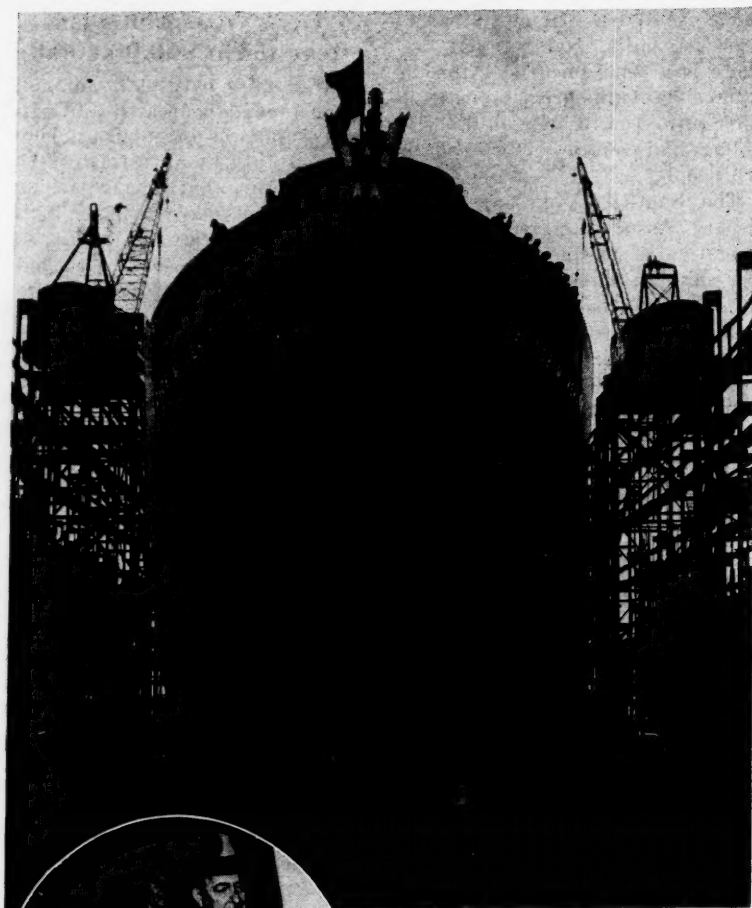
Combined investment for the two projects in the pine woods of East Texas, is around \$10,000,000. Annual output of the newsprint plant is about 50,000 tons, of the kraft mill, about 175 tons daily.

A proposal was advanced late in 1943 by Representative Lyle H. Boren, Oklahoma member of the congressional committee on interstate and foreign commerce, supporting a 100 per cent increase in the plant's capacity. He said there was room for three or four more such mills in the South.

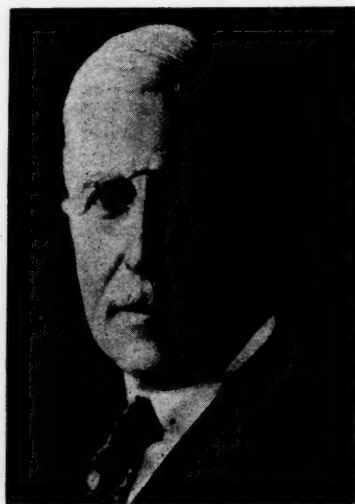
War Production Board officials announced in the spring of 1944 that a paper division committee was reviewing a request of the Southland company for permission to install a wrapping paper machine.

The Texas plant resulted from experiments carried on over a long period of years by Dr. Charles R. Herty, Georgia industrial chemist, and the Chemical Foundation.

The Southern Newspaper Publishers Association is promoting erection of additional newsprint mills in the South. Market for the output is indicated by the fact that importations from Canada approximate 200,000 tons monthly.



*Left—The George M. Verity, Bethlehem-Fairfield's 375th Liberty ship, was christened by Mrs. Calvin Verity, wife of Mr. Verity's son. The lower portrait is of George M. Verity, for whom the vessel shown above was named.*



**B**ETHLEHEM - Fairfield Shipyard, Inc., Baltimore wartime affiliate of the Bethlehem Steel Company, last month launched the first Victory ship built on the East Coast and at the same time rushed construction of the last of 384 Liberty ships under a three-year program started in September 1941.

The Victory ship, the Frederick Victory, was named for Frederick, fourth largest city in Maryland and a center of the Free State's prosperous western agricultural area, as well as a lively rural manufacturing community. Mrs. Hugh V. Gittinger, wife of Frederick's mayor sponsored the vessel.

Trimmer of bow and stronger of stern than the hundreds of Liberty ships preceding her down the fourteen ways of the southeast Balti-

# Baltimore Shipyard Launches Its First Victory Vessel

more yard, the longer and heavier Frederick Victory seemed to emphasize her greater speed as she slid down the ways at a pace faster than other ships launched at the yard. A new electric trigger launching device was used.

Overall length of the new Victory ships is 445 feet, 14 feet longer than the predecessor Liberty. Beam is 62 feet, or five feet wider. Over 60 miles of welding goes into construction of one of the new vessels, as compared with the 46 miles of welds made in a typical Liberty vessel. Victory ship speed is placed conservatively at 15 knots, while maximum speed of the Liberty boats is around 12 knots. The newer Victory design is turbine driven.

Among the eight Liberty ships on the Bethlehem-Fairfield program for September was the George M. Verity, named in honor of the founder of the American Rolling Mill Company, of Middletown, Ohio, and who at the time of his death in 1942 was the patriarch of a \$200,000,000 enterprise that in forty years had grown from 350 to 20,000 employees and an annual production of 3,280,000 tons of steel.

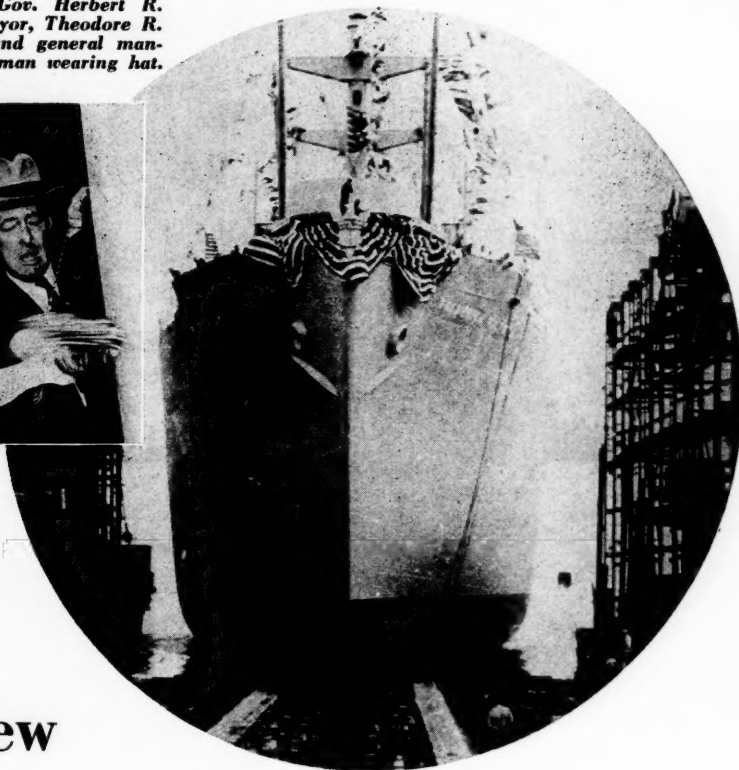
Three plants in Ohio, one in Pennsylvania, another in Kentucky, and operations that with those of subsidiaries reached around the world, are now part of the Armco organization. Rustless Iron & Steel Corporation, Baltimore, a pioneer in non-corrosive steel development, and the Sheffield Steel Company, of Kansas City, Mo., which recently placed a

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Below—Mrs. Hugh V. Gittinger swings at the launching of the Frederick Victory. Watching, are Gov. Herbert R. O'Connor of Maryland and Baltimore's mayor, Theodore R. McKeldin. J. M. Willis, vice president and general manager of Bethlehem Fairfield is the gentleman wearing hat.



Right — The Frederick Victory, first ship of its class to be launched at the East Coast, slides down the ways at the Southeast Baltimore yard of Bethlehem-Fairfield Shipyard, Inc.



Above—Frederick Victory slides down ways.

## Industrialist Honored by New Liberty Ship

new plant in operation at Houston, Texas, are numbered among the subsidiaries.

The George M. Verity was the 375th Liberty ship built at the Bethlehem-Fairfield yard. She was christened by Mrs. Calvin Verity, wife of the executive vice president and general manager of the American Rolling Mill Company, as other members of the Verity family and Company officials looked on. Charles R. Hook, Sr., president of the Ohio concern and also of Rustless Iron & Steel Company, Mr. and Mrs. Newman Ebersole, the latter one of the late Mr. Verity's daughters, and Charles R. Hook, Jr., Secretary of the Rustless Iron and Steel, and Mrs. Hook.

Others at the Verity launching, which followed the first Victory ship by three days, included W. W. Sebald, Armco vice president and general manager; E. A. Emerson, president of Armco International, and Mrs. Emerson; W. C. Hull, vice president of the Chesapeake & Ohio Railway, and J. M. Willis, vice pres-

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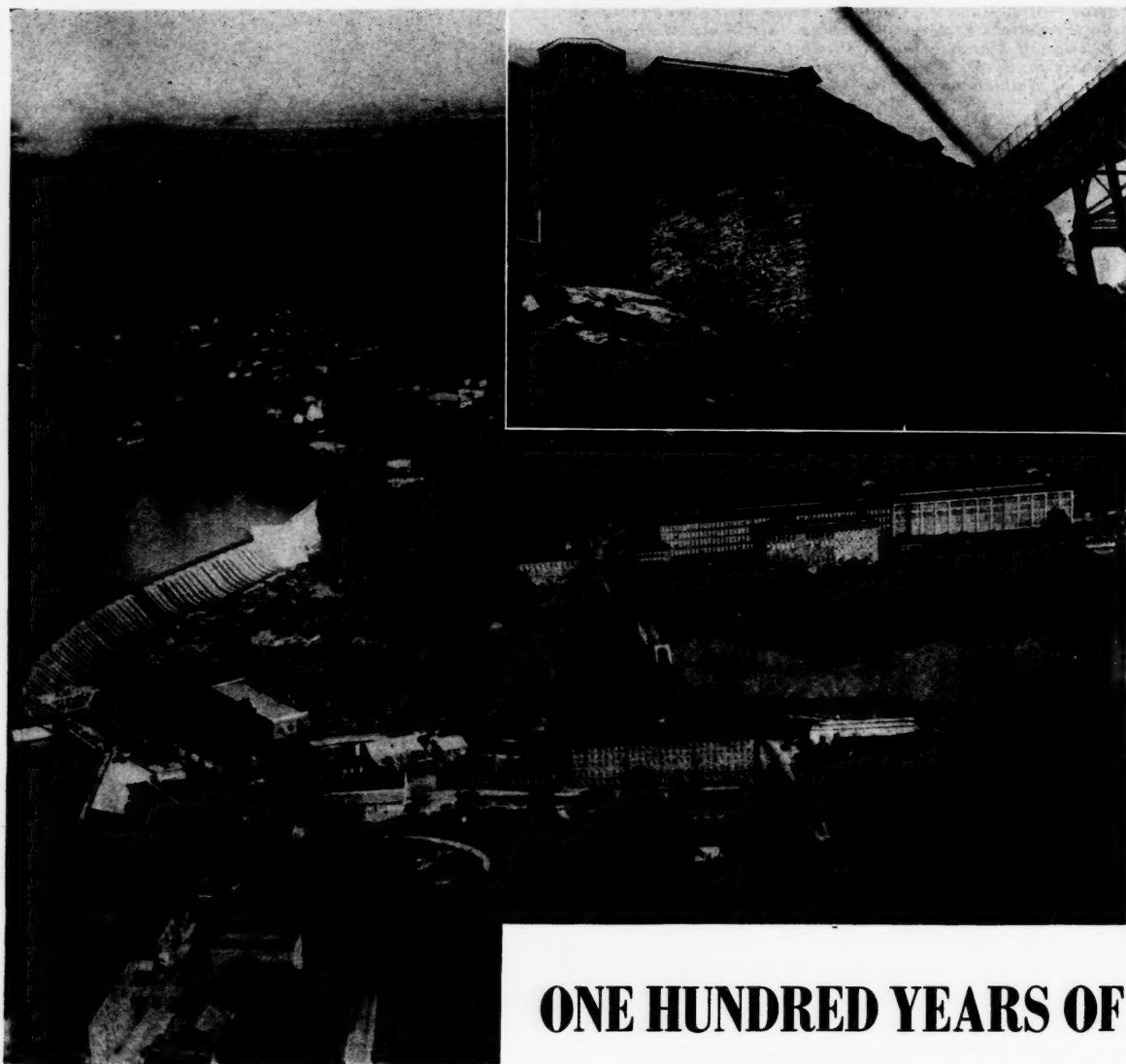


Above—The George M. Verity, Liberty ship named after the late chairman of the Board of the American Rolling Mill Co.

Below—View of the new Frederick Victory, which was named after Maryland's fourth largest city. She is 455 feet long, 14 feet longer than the Liberty type; 62 feet beam, five feet wider. Speed is estimated at 15 knots. Maximum for the Liberty boats is around 12 knots.



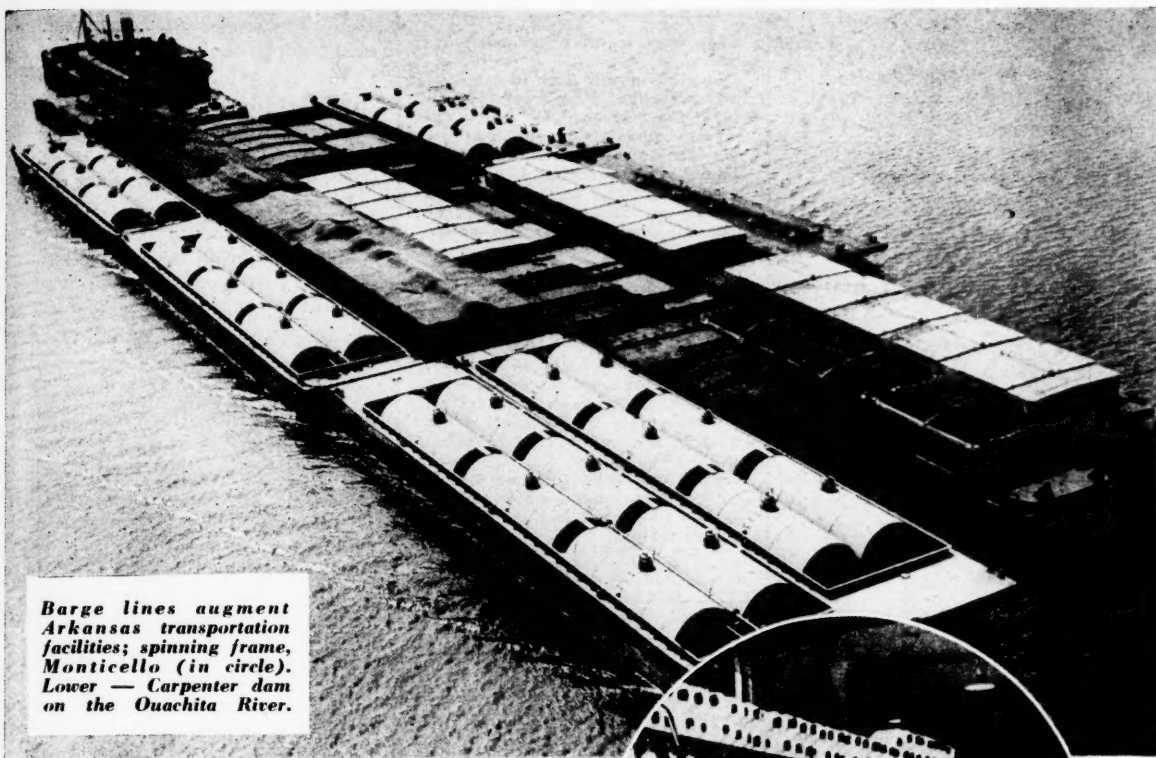




## ONE HUNDRED YEARS OF THE AMERICAN WAY

Alabama's Tallassee Mills, at Tallassee, has celebrated its hundredth anniversary this year. Its achievements in the textile field and its contribution to the industrial development of Alabama are noteworthy and historical. Tallassee has entered its second century with a far greater outlook than in 1844, with larger markets for its products and improved methods of production and distribution. Built in 1844, the original mill (upper right), now used for storage, had 1,000 spindles, 40 looms and comparable machinery for bleaching and dyeing. Power came from water wheels, while mule and oxcart transportation han-

dled the raw materials and finished products. Today there are 105 times as many spindles, 30 times the original number of looms; its power is hydro-electric and accessible rail facilities speed its products to the earth's four corners. Five wars, fire and flood have played their parts, constructive and destructive, in the Mills' history, but it always has advanced in the quality of its products and services. Tallassee Mills is Tallassee, Alabama; the citizens of Tallassee are Tallassee Mills, a combination with few parallels in American industry. Its war effort for both plant and employees has earned the Army-Navy "E" and the Treasury "T" pennants.

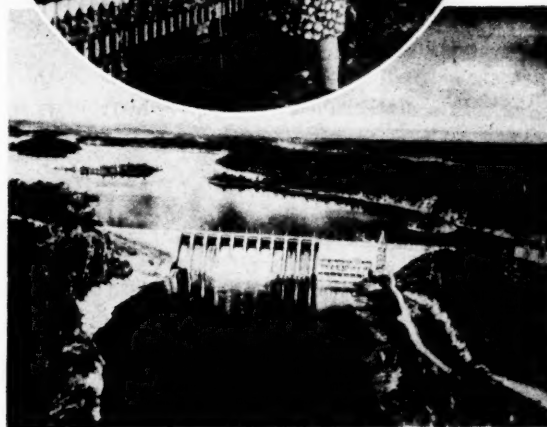
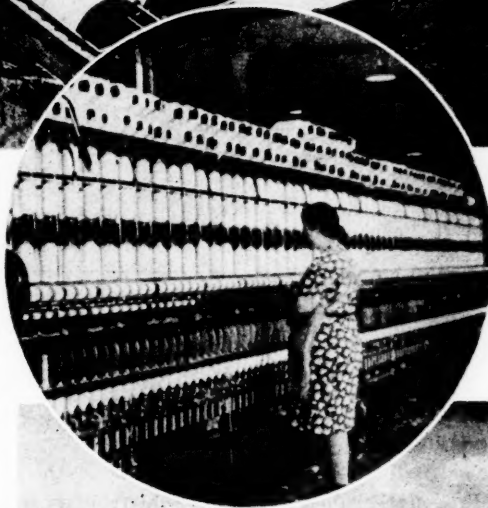


*Barge lines augment Arkansas transportation facilities; spinning frame, Monticello (in circle). Lower — Carpenter dam on the Ouachita River.*

## Arkansas Plans for the Future

ARKANSAS is a state which exported vast quantities of raw materials. For many years the state has ranked high in the production of cotton, rice, fruits and vegetables. From its 20,000,000 acres of forest lands normally comes 1,700,000,000 board feet of lumber per year. From its mines have come bauxite, from which aluminum is made; also coal, zinc, manganese, limestone and numerous other minerals of commerce, including petroleum and natural gas.

Of recent years there has been a determined effort on the part of its citizens to increase the amount of manufacturing and processing work done within the state. The first effective effort along this line came in 1937 when the Legislature passed an Act providing for an Agricultural and Industrial Commission whose purpose was to promote industrial enterprises within the state and to procure the location of manufacturing and processing plants for the development of the state's natural resources. Seven able men were appointed on the Commission and they put in motion an agency that is destined to be one of the most important instruments of the state government. The results are speaking for themselves. The records of the Commission show that from 1939 to 1943 a total of 604 new or definitely expanded industries had been



(Courtesy Lion Oil News)

established. This includes 57 plants designed strictly for military use.

The first job of the Agricultural and Industrial Commission was to arouse the people of the state and apprise them of the fact that as a purely raw material shipping state, the state's per capita income could never approach that of the nation's average. There

is always more profit in the processing and manufacturing of raw materials than in the production of those raw materials was the text of the sermon preached throughout the state by H. K. Thatcher, the Executive Director of the Commission, and to improve her lot, Arkansas would have to balance her agricultural and mineral production with processing and manufacturing.

In bringing this matter to the attention of the people, the Commission selected 300 citizens in the state who were adjudged to be leaders in their professions and vocations, and to this 300 a letter was sent asking them to advise with the Commission on the types of industry that should be sought for the state. The results of this inquiry showed that 139 recommended food and feed processing plants as their first choice, 122 recommended finished lumber and pulp-plant, 83 suggested chemical plants, 35 pointed out that cotton spinning mills and other products made from farm crops were necessary, 31 placed mining and quarrying as of first importance and there were 38 who made recommendations that had to be classed as miscellaneous.

This was a pattern for Arkansas and, although the war disturbed it some, the results are interesting. Of the 604 plants developed from 1939 to 1943, 137 of them processed food and feed, 128 processed wood in some form, 186 dealt with minerals and 96 were classed as miscellaneous.

The State of Arkansas, once getting the vision of what had to be done, went about the job in a systematic manner. It was apparent to leaders of the state that if they wanted the state developed, it was up to them to do the work. To those charged with the responsibility of getting the job done, it was evident that organization was needed. The first effort at organization was to form a farm chemurgic council. This was done in the fall of 1938 and the spring of 1939. It did not succeed because of opposition from some of the leaders in the farm organizations and educational institutions. The failure of the farm chemurgic movement to materialize did not stop the thinking men of the state from planning ahead for future days, and their perseverance was rewarded in the spring of 1943.

**Growth of industry and manufacturing in Arkansas, greatly accelerated in the past four years, was somewhat slow from 1900 to 1939, the last year for which accurate figures are available. From the turn of the century until 1939 value of manufactured products went from \$39.9 million to \$160.2 million, a gain of 300 percent whereas the gain for the entire South was over 600 per cent. However, comparison with agricultural production during the period shows a definite industrial trend. Farm products were valued at \$79.6 million in 1900 and had climbed to \$166.6 million by 1939, a percentage gain considerable less than that shown by industry. Approximately 98 per cent of the bauxite, principal source of aluminum, mined in the United States comes from Arkansas, and this is expected to play a major role in further industrialization of the Wonder State.**

—from coming 1944 BLUE BOOK of Southern Progress

In the early spring of 1943 a series of luncheon conferences were held throughout the state and industrial organization was discussed. In June of that year a general invitation was issued, a state-wide meeting was held and resulted in the formation of the Arkansas Economic Council. This organization was officered by leading industrialists of the state. Committees were set up to do specific jobs. There was little or no fanfare about the whole business because the men selected to head these committees were in reality the Board of Directors of the state. They embraced farmers, industrialists, educators, transporta-

tion and utilities men, professional and trades people.

The Economic Council, working in cooperation with the State Agricultural and Industrial Commission, other state agencies and educational institutions, has set for its goal the balancing of the state's agricultural and mineral raw material production with sufficient industry to insure the state an equitable share in the national income. The people pretty generally had an idea of the types of industries which should be developed, and the next undertaking was to prepare engineering studies showing how such plants could be built. More than thirty such studies have already been completed and others are in the process of being made.

The President of the Arkansas Economic Council is C. H. Moses, Little Rock, Arkansas, who is also President of the Arkansas Power & Light Company. His chief assistant in the organization work is Bill Shepherd, Pine Bluff, Arkansas, also a member of the Arkansas Power & Light Company staff. They are doing an excellent job of organ-

(Continued on page 76)

*Below — Tampa Shipbuilding Co. launched its fifty-ninth Navy ship September 17. The vessel was the third ammunition carrier to be constructed at the Tampa, Fla., yard. Left to right—George B. Howell, organizer and president of the shipbuilding concern; Mrs. Roswell B. Daggett, sponsor; George M. Forrester; Mrs. George M. Forrester, matron of honor, and Capt. R. B. Daggett, supervisor of shipbuilding for the Navy.*





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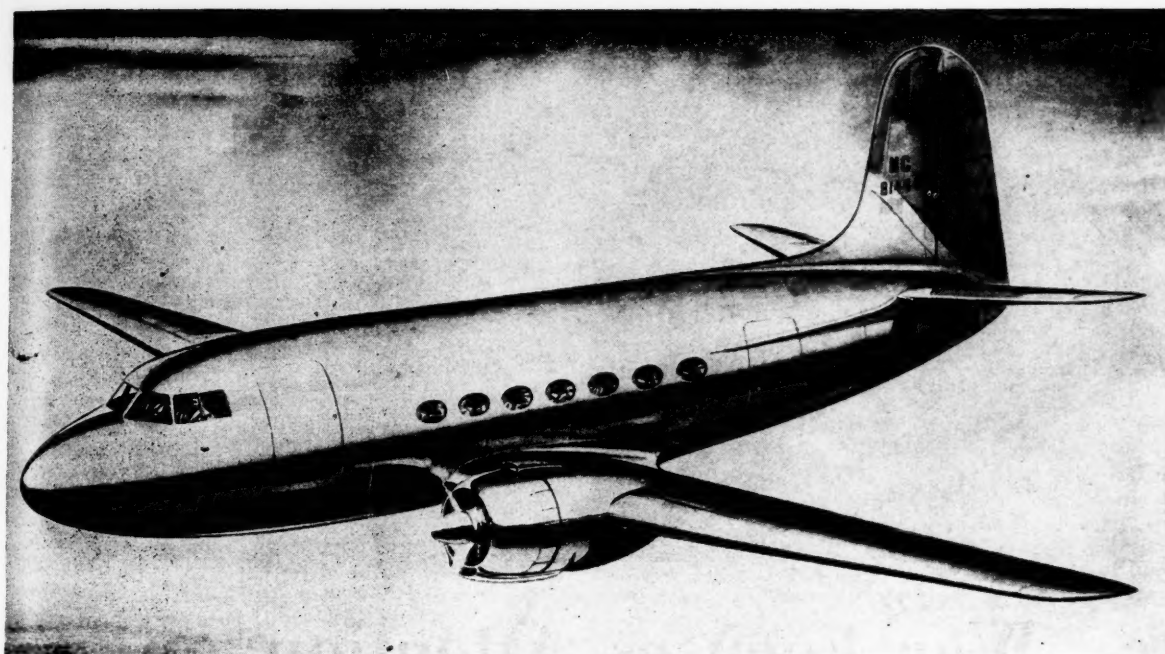
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# Glenn Martin Predicts Eight Year Conversion for Plane Industry

*producer of pre-war clippers  
and army and navy bombers, now  
designing post-war transports*

*Above—Short range, 30-passenger,  
twin-engine transport designed by  
engineers of the Martin company.*

Glenn L. Martin

**E**IGHT years will be required to convert airplane manufacturing to peacetime production, according to Glenn L. Martin, one of the leading figures in the industry and head of the huge Baltimore plant that bears his name.

Speaking over a national radio hook-up early last month, almost simultaneously with release of War Mobilization Director James F. Byrnes' report revealing that a 40 per cent cutback in war production would follow victory in Europe, Mr. Martin collaborated with Donald W. Douglas, president of Douglas Aircraft Co. in a discussion of post-war problems of the plane industry.

"Obviously for some years after the war," he emphasized, "the air-

plane industry must remain largely military. For those years, the industry must be as much as 75 per cent military and only 25 per cent commercial. I expect that within eight years, these proportions will be reversed.

"The one thing we want to do is remove the uncertainty hanging over the heads of our people and our companies. The sooner we can settle our war contracts and begin working on new military and commercial orders, the sooner we can stabilize our operations and offer security to our workers."

Mr. Martin sees a reduction in the number of employes in the plane producing industry, but no great

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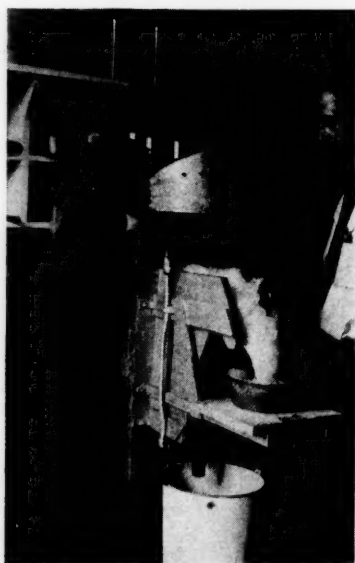


# War Focuses Attention on Southeast's Non-Metallics

by  
**Oliver C. Ralston<sup>1</sup>**  
and  
**E. R. Nicolai<sup>2</sup>**

<sup>1</sup> Chief, Industrial Minerals Division, Bureau of Mines.

<sup>2</sup> Information Specialist, Bureau of Mines.



**F**ROM the hills and valleys of the Southeastern states moves a steady stream of minerals as important as they are little known to the average person. Non-metallic, their names are strange-sounding—rutile, zircon, dolomite, barite, celestite, spodumene, fluorite, olivine, kyanite and many others—but they are making history along with the heroes of Saipan, Normandy, North Africa and Guadalcanal.

Without these minerals, wartime industry could not harness coal and iron and other more familiar minerals to produce the multi-billion-dollar stream of tanks, guns, ships and planes. The non-metallics, or industrial minerals, hold the guiding reins.

They form a wide range of contrasts. There is corundum, the hardest mineral next to the diamond; talc, the softest known mineral. Corundum goes into heavy duty grind-

ing wheels for steel mills; important as a final polishing agent for optical glass for bomb sights, range finders and binoculars. Talc is used in insulators essential in radio sets used by the fighting forces.

Importance of the Southeastern states in the non-metallic field is based primarily on its geologic heritage, where, according to the Bureau of Mines, U. S. Department of the Interior, there are some of the oldest rocks on earth and some of the most recently developed formations.

Probably a greater variety of clays can be found in this section than in any other comparable area of the United States. There are the common brick clays and the white kaolins, as well as nearly every type of industrial clay. From these clays are made fine dishes, heavy clay wares, special bricks. They are in demand for paper fillers and coatings, fillers for rubber, and for binding graphite used in making lead pencils.

Bentonites are used as binders in foundry sand and in thickening drilling muds for oil field development. Fuller's earth from Florida and Georgia purifies and removes

*Top of page—Shovel digging in a southern clay deposit.*

*Left—Scientist studying beneficiation of clay at the Tuscaloosa experiment station of the Bureau of Mines.*

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objectionable colors from petroleum, from fruit juices, and other liquids.

Sand and gravel and crushed stone are the giants of the concrete and road-building industry. Both are plentiful in the Southeast except in some areas of the coastal plain. Special sands are needed for glass-making, for railroads to prevent locomotive driving wheels from slipping, and for purifying water in municipal filtration plants. All are found in this region.

In some of the river and beach sands are the heavier mineral grains, such as rutile, zircon, garnet, ilmenite, kyanite, and monazite. Florida beach sands are among the greatest domestic sources of rutile and zircon. Rutile goes into welding rod coatings for electric welding machines used in steel construction. Zircon is in demand for special super-refractory brick, in porcelain enamels, and pottery glazes.

Production of ilmenite sands in the Southeast, particularly in Florida, has increased with the war, because these sands are richer in titanium than the massive deposits of ilmenite found in crystalline rocks. Titanium white is one of the most desirable white pigments needed by the paint industry.

Graphite, like talc, is another of the "soft" minerals of the Southeast. Chemically the same as the diamond, graphite's usefulness in metal melting crucibles and steel ladle stoppers is important. Before the war, much of the Nation's graphite came from Madagascar. With the submarine crisis came the realization that Alabama had extensive graphite deposits.

The Bureau of Mines sent exploratory crews to Alabama, obtained hundreds of samples from old workings and prospects, examined them at its laboratory at Tuscaloosa, Ala., and worked closely with the War Production Board in plans for reviving the long-dormant graphite industry of Alabama. Several plants were established, and all were producing early in 1943. Three were in Alabama.

Bauxite, the principal ore of aluminum, also is a leading refractory for lining various furnaces. Bauxite is abundant in Arkansas, Georgia, Alabama and Mississippi. Aside from its value to the aluminum and refractory brick industry, bauxite is fused into an important

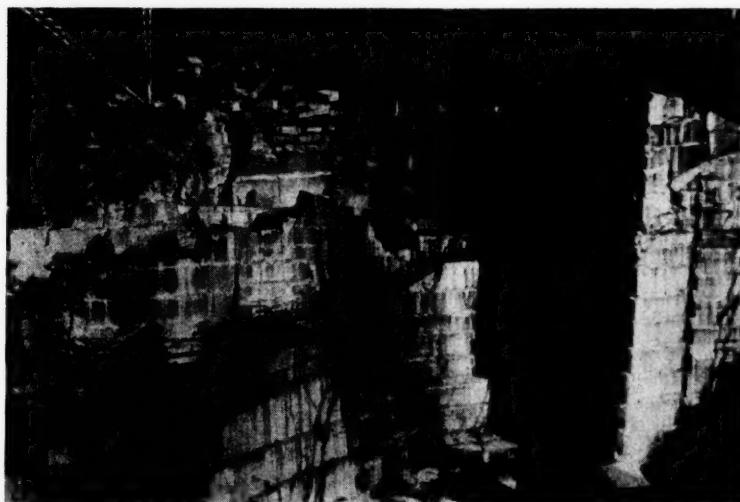


*Above—Mining Alabama bauxite, one of the ores of aluminum, by open-pit method.*

abrasive as well as dissolved in acids for use in water purification plants.

Exploratory work of the Bureau of Mines has revealed considerable tonnages of marketable bauxite suitable for aluminum and large amounts of lower-grade material. The latter is being subjected to extensive examination in the Bureau's electro-technical Laboratory at Norris, Tenn., where a ceramic and mineral-testing unit also is operated. It was there that the Bureau of Mines processed some of the first of the special talc insulators now being produced by private industry for military radios.

*Below—A Tennessee marble quarry near Knoxville.*

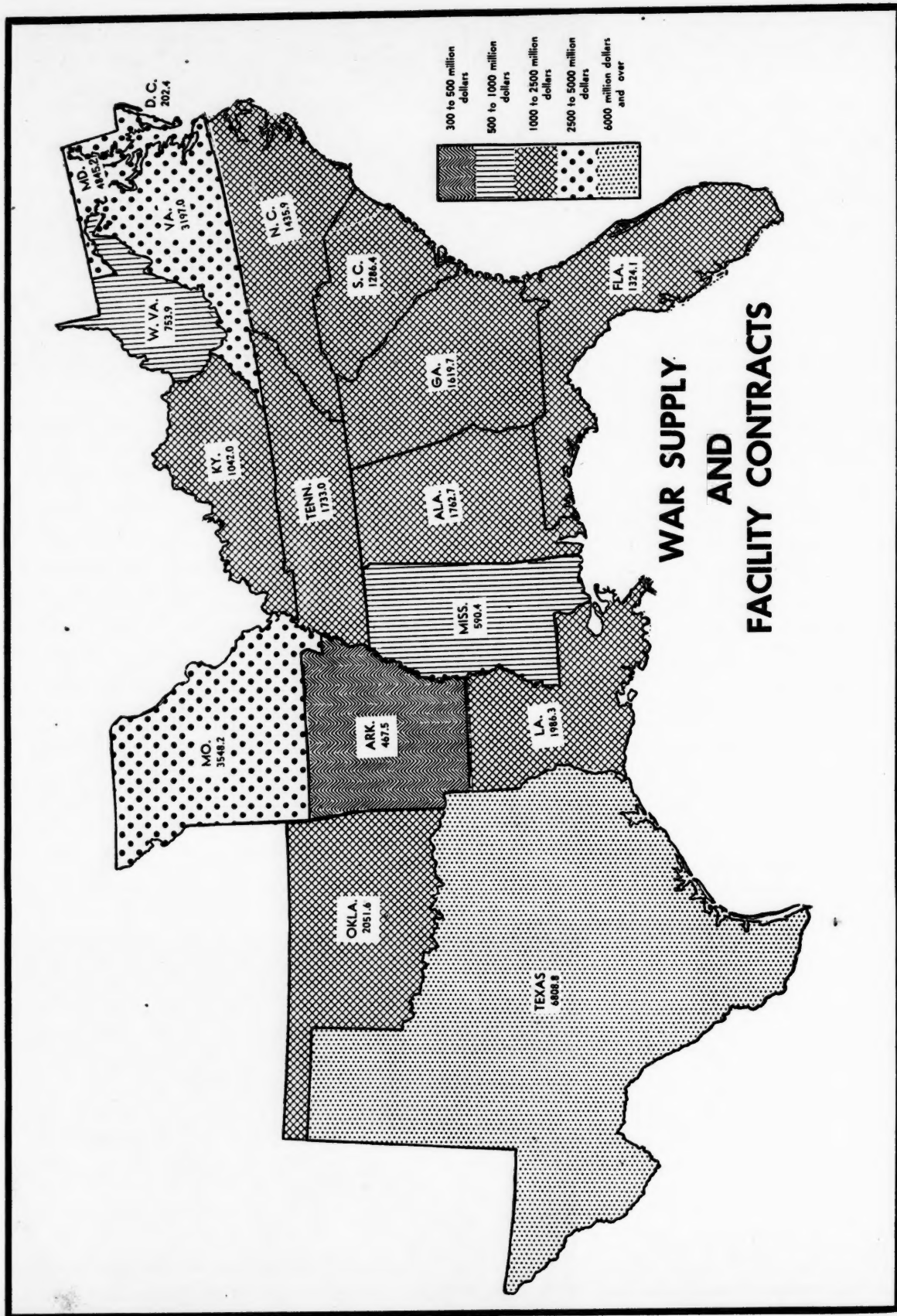


The Southern Experiment Station of the Bureau at Tuscaloosa, Ala., studies the preparation of iron ores, non-metallic minerals, and coals of the Southeastern states. Recent activities have been centered around the beneficiation of coals, iron ore, bauxite, graphite, talc, and fluorite. This station operates a pilot plant for winning alumina from clays by a process using sulfuric acid and alcohol. Considerable research on some of the Southeast's non-metallies has been conducted at the College Park, Md., experiment station.

Besides bauxite, bauxite clays, and zircon, other important refractories of the Southeast are the pyrophyllite (hydrated aluminum silicate) deposits of North Carolina, the olivine or dunite rock of the Southern Appalachians, and dolomite and kyanite. The olivine or

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# South's War Contracts Near \$35 Billion

Distribution of major war supply contracts and facility projects, as compiled by the War Production Board, shows that the South's share, as of June 30, 1944, had neared the \$35 billion mark. The total for the entire nation was \$206,279,794,000. Since December 31, 1944 the South's gain totaled \$4,992,489,000, or 16.8 per cent. In the corresponding period gains for the states outside the South increased 12 per cent, illustrating the continued industrial advances of the states south of Mason and Dixon's line.

Aircraft, shipbuilding, industrial, and ordnance projects continue to lead and in the order listed. Military facilities and projects have now reached the total of \$4,529,221,000, but there will doubtless be a slackening in the immediate future.

Texas heads the southern group with a grand total of \$6,808,791,000, aircraft and shipbuilding being the two major items of the Lone Star State. Maryland's total was next to that of Texas, being nearly \$5 billion, with aircraft decidedly the largest single contribution. Missouri and Virginia are next with over \$3 billions each, and Okla-

homa's share passed the \$2 billion mark. Eight states are well past \$1 billion, with Arkansas and the District of Columbia the only units registering less than half a billion.

Increases were recorded in all of the southern states, Mississippi excepted, where there was a slight recession due to unavoidable withdrawal of certain commitments.

The majority of war contracts are allocated on the basis of location of producing plants and readily available raw materials a strong factor in final awards.

## August Ship Construction

Of the 119 ships of several types delivered to the War Shipping Administration in August, 58 were built in southern yards—41 Liberties, 7 special Military Type, 4 Tankers, 3 Coastal Cargo Types, 2 C-typ Cargo, and 1 Concrete cargo.

Yards of the South making deliveries were, Alabama Dry Dock and Shipbuilding Co., Mobile, Ala.; Avondale Marine Ways, Westwego, La.; Bethlehem-Fairfield Shipyard, and Bethlehem-Sparrows Point Shipyard, Baltimore, Md.; Delta Shipbuilding Co., New Orleans, La.; Ingalls Shipbuilding, Pascagoula, Miss.

J. A. Jones Construction Co., Brunswick, Ga. and Panama City, Fla.; McCloskey and Co., Tampa, Fla.; North Carolina Shipbuilding Co., Wilmington,

N. C.; Pendleton Shipyards, Inc., New Orleans, La.; Pennsylvania Shipyard, Beaumont, Texas; St. Johns River Shipbuilding Corp., Jacksonville, Fla.; Southeastern Shipbuilding Corp., Savannah, Ga.; Todd-Galveston Drydock, Galveston, Texas and Todd-Houston Shipbuilding Corp., Houston, Texas.

## Surplus War Property Sales

W. L. Clayton, Surplus War Property Administrator, recently announced that between May 15 and August 15, approximately \$38,000,000 of surplus war property had been disposed of by five authorized disposal agencies. Remaining inventories on August 15 were \$313,000,000, with a sizeable quantity of slow-moving aircraft and gliders, as well as plants and real estate contributing to size of inventories.

Reconstruction Finance Corporation is handling capital and producers' goods, and Procurement Division of Treasury is handling consumer items. Minor disposals have been made by Maritime Commission, War Food Administration and Foreign Economic Administration. Mr. Clayton says both RFC and Procurement have realized a high percentage of cost in their disposals of surplus war property, but did not comment on realizations by the other agencies.

Trucks, fabricated textile products, furniture and fixtures, and leather products have been the fastest moving consumer goods.

## Furniture Industry Gets More Hardwood

An extra 70,000,000 board feet of hardwood lumber has been allotted to the furniture industry, the Office of Civilian Requirements of the War Production Board announced recently. This is a substantial addition to the 236,000,000 feet already allocated for the third quarter and is expected to be of great help to the industry, OCR said. The grant is limited to No. 2 common or mill run grades, but carries no restriction on species of hardwoods that may be used. OCR officials believe that mill run material would provide a fair percentage of No. 1 common or better grades of lumber.

DISTRIBUTION OF MAJOR WAR SUPPLY CONTRACTS AND FACILITY PROJECTS. CUMULATIVE (1000 OF DOLLARS)

State	Supply Contracts through June, 1944					Facility Projects through May, 1944				
	Aircraft	Ships	Ordnance	All Other	Total	Industrial	Military	Total	Project Orders	Grand Total
Alabama	\$37,390	\$414,761	\$405,630	\$241,807	\$1,090,588	\$468,498	\$181,606	\$650,104	\$13,052	\$1,762,744
Arkansas	.....	.....	93,265	30,255	123,520	232,614	111,102	343,716	216	467,452
Dist. of Col.	3,556	994	919	12,370	17,839	27,004	71,636	98,640	85,904	202,383
Florida	5,159	599,257	16,876	98,980	708,272	62,718	515,243	577,961	37,824	1,324,057
Georgia	418,117	282,119	139,504	391,759	1,231,490	110,019	277,288	388,207	.....	1,619,706
Kentucky	327,204	122	115,396	149,226	591,948	282,774	167,275	450,049	.....	1,041,997
Louisiana	218,088	451,345	110,204	237,005	1,017,542	355,971	252,861	608,832	359,876	1,968,250
Maryland	1,960,448	704,647	393,266	1,197,915	4,316,276	225,030	269,690	494,720	34,231	4,845,227
Mississippi	5,619	244,234	45,753	58,475	354,081	45,891	190,400	236,291	.....	590,372
Missouri	\$84,160	123,915	1,492,809	458,325	2,929,218	475,213	143,670	618,883	41	3,548,241
North Carolina	67,021	344,172	112,540	447,910	971,643	99,825	364,403	464,228	.....	1,435,871
Oklahoma	1,343,468	1,818	78,256	167,782	1,591,324	201,650	258,634	460,284	.....	2,051,608
South Carolina	.....	49,181*	3,253	329,995	382,429	58,288	155,860	214,157	689,843	1,286,429
Tennessee	359,585	29,790	419,410	386,113	1,194,808	362,223	175,887	538,110	.....	1,733,008
Texas	2,089,303	1,359,020	337,454	1,157,152	4,942,929	1,052,371	813,491	1,865,862	.....	6,808,791
Virginia	4,333	979,074†	98,632	215,810	1,297,849	224,973	572,353	797,331	1,101,773	3,196,953
West Virginia	.....	45,786	125,771	306,557	478,114	267,977	7,813	275,790	.....	753,904
<b>SOUTH</b>	<b>\$7,694,360</b>	<b>\$5,690,235</b>	<b>\$3,988,938</b>	<b>\$1,875,436</b>	<b>\$23,248,969</b>	<b>\$4,553,944</b>	<b>\$4,529,221</b>	<b>\$9,083,165</b>	<b>\$2,322,760</b>	<b>\$34,654,894</b>
<b>U. S.</b>	<b>\$57,250,293</b>	<b>\$26,018,093</b>	<b>\$42,053,410</b>	<b>\$41,914,566</b>	<b>\$167,236,362</b>	<b>\$16,720,808</b>	<b>\$12,935,197</b>	<b>\$29,656,007</b>	<b>\$9,387,427</b>	<b>\$206,279,794</b>

\*Does not include Naval Construction, Charleston Navy Yard.

†Does not include Naval Construction, Norfolk Navy Yard.

"Aircraft" includes contracts for airframes; airplane engines, propellers, and other parts; and certain related equipment such as parachutes and aircraft pontoons, armaments, instruments, and communication equipment are excluded. "Ships" include contracts for the construction of new vessels of all kinds; the purchase of used ships; and ship conversion, recommissioning, and repair. Propulsion machinery (when separately contracted for), armor, armament, navigation and radio equipment, parts and materials are excluded.

# Each Drop in the Bucket Counts

A PHENOMENON of today, thoroughly unhealthy in nature, is the widespread notion, or feeling, or attitude that, since we are spending so many billions of dollars and are accumulating such a huge national debt, we need not be greatly concerned when a few extra billions of dollars are involved. What, so the argument goes, are five or ten billions of dollars more for this or that when compared to what we have spent and are spending in this war?

One can read that argument in almost any issue of the *Congressional Record*. It permeates the proposed programs for expanding social insurance. It lies behind subsidy programs and other favors accorded pressure groups which are politically powerful. One meets it in current "new-economics" books, in newspapers, in conversation, on the radio. Very recently a United States Senator, for example, in his enthusiastic endorsement of the proposed International Monetary Fund and Bank, illustrated this type of thinking when he said in substance, over the radio, in connection with the discussion of the size and possibility of losing the contemplated United States investment of six billion dollars in these institutions, that it would amount to less than we are putting out in war expenditures each month for death and destruction.

It does not seem to dawn upon those holding such views that it is precisely because we are spending so much in this war, and had spent so much before the war, that there is just that much less that we can now safely spend for other things.

"The more we spend the more we can risk and spend and waste" is a philosophy that has become dangerously widespread in this nation. This is the road to national financial disaster, and we had better make no mistake about this matter. The ability of the taxpayers to bear the burdens being heaped upon them ultimately provides the answer; and should a business depression add much more to the back-breaking load of these all-but-forgotten people, the reckoning could come quickly and in a devastating

by  
**Walter E. Spahr**

*Professor of Economics, New York University, Executive Secretary, Economists' National Committee on Monetary Policy*

manner. We seem to be giving relatively little attention today to this possibility, if not very real probability.

Regardless of what the future may bring in the way of economic reaction, there is every reason why this currently popular philosophy of reckless spending and wasting and risking the taxpayers' money should be ended as quickly as possible, and why very much greater, rather than less, care in economizing should be practiced by our government. The American people need more Byrd Committees, and our government needs to give better support to the Byrd Committee.

When Sir George Paish, long a close student of business fluctuations, visited the United States in 1937 he advanced the following thought as to the wisdom of governments in dealing with economic problems and regarding the responsibility of governments for social distress: "Long experience has caused me to come to the conclusion that the economic crises of the world which come from time to time are the result rather of political action than of economic action, and can be avoided only when the statesmen of all nations have a greater understanding of economic law and have some appreciation of the consequences of their own actions...."

Apropos the observation of the United States Senator, mentioned above, it may be said that there is an alternative to the possible unwise investment, if not loss, of the six billion dollars which would be less than "we are putting out in war expenditures each month": it is the employment of the taxpayers' money in ways that would be most helpful without it being lost. If Congress should decide that the proposed international Fund and Bank are not desirable instrumentalities of international cooperation, there remain other ways of extending aid to the

people and governments of other countries. If we are to engage in international charity, there is every reason why Congress should do this openly with all taxpayers adequately informed. If the money of the United States taxpayers is to be risked in ways that may lead to its loss, this should not be done by devious means; and it is better that it be done by Congress, whose members can be held to an accounting, than by some foreign powers who have no real responsibility for the welfare of the American taxpayers. Putting the American taxpayers under the control of an international board, the implications of which the taxpayers may not understand, is but one kind of device for affording aid—loans or charity—to the people of foreign countries. The same amount of aid—loans or charity—can also be provided by Congress whose members supposedly would have a greater interest, and certainly more direct responsibility, than would an international board, in considering the tax burden of the people of the United States.

Finally let it not be forgotten, regarding the prevalent philosophy of spending and more spending, that a large proportion of the huge tax load that is being accumulated so rapidly and recklessly—even cynically—will fall upon the backs of the young men who will have fought through this war and who will return and soon attempt to become an important proportion of the wealth-producing population of this country. Much is being said in Congress and elsewhere these days about spending billions for this and that to aid the returning veterans, but practically nothing is being said about the crushing tax burdens that are being piled up as a huge load to be thrown upon the backs of these largely helpless people just at the time that they will be hoping to get a start in building a business or profession and an income sufficient to provide a good home. The accumulating tax burden promises to be so great that they and all other producers and savers can expect to bear it throughout their lives, as can their children after them.



# SMALL TOWNS OFFER WORTHWHILE MARKET

THE metropolitan centers may glitter more brightly and bustle impressively, but an aggressive sales manager, out for all the business he can get, gives equal attention—indeed, in certain lines, he gives more attention—to the so-called small towns. There is nothing small about the business done in them, in fact, towns of less than 20,000 population contain over half the retail stores and ring up nearly 40 percent of the nation's retail sales.

Just what size constitutes a small town is something for Chambers of Commerce and sensitive citizenry to argue over, but there is no dispute over official figures which show that towns of less than 10,000 souls support 46 percent of the outlets and do 30 percent of the retail business. Breaking it down even finer, it is found that towns under 5,000 population maintain 40 percent of the stores and do 23 percent of the country's total business.

That the small towns in post-war years will afford a tremendous market is emphasized by a study of figures released recently by the Department of Commerce in "Markets After The War." At "capacity operation of the economy" the dollar income of consumers in 1947 will top the richest peacetime year by more than 40 percent, average income of each consumer unit (family or unmarried individual) will be

## *The smaller the town, the more business*

about 24 percent greater than the 1929 record, and per capita income will exceed either 1929 or 1941 by at least a third.

Assuming that World War Two will end by the spring of 1946 and productivity be attained by 1947, full employment and correspondingly our gross national production is expected to reach a record \$165 billions at 1942 prices. 40 percent of that—the portion normally traded in towns of less than 20,000 population—will make no mean market.

A still more impressive market is offered by towns of less than 25,000 persons. These centers of moderate numbers of citizens, together with surrounding unincorporated rural areas, embrace about 60 percent of the country's population.

Nor should a sales manager assume that a small town containing a certain percentage of the population does just that proportion of the business. An interesting comparison exists here. Towns of under 5,000 population, for instance, comprising only 11 percent of the population, do 23 percent of the nation's total business. Thus the small town is far more important as a market than its population would indicate.

Parenthetically, these figures are computed upon pre-war totals, those for 1939-40; and give a more stable over-all impression than could be gotten from using wartime figures. Most large producers and distributors are basing their post-war promotional plans upon the 1939-40 Censuses of Business and Population, allowing themselves enough leeway to make later adjustments.

A few businesses are strictly big-town in nature, the greater propor-

tion of commercial endeavors prosper in towns of all sizes, and a few are naturals for the smaller places.

Of the nation's total sales in General Stores, 92 percent is handled in towns of less than 5,000 population. These towns also do 63 percent of the business in Hay, Grain and Feed stores, 60 percent of the trade in Farm implements and hardware, 49 percent of the turn-over in farm and garden supply stores, and 24 percent of the business by new automobile dealers. All these excepting the new car establishments have only a minor place in a big city's commercial activities.

In working out percentages of commodity outlets in cities of less than 20,000 population, it is found that they contain 98.5 percent of the general stores, doing 97.1 of the United States' total business in such stores; 92.5 of the farm implement and hardware dealers and 84 percent of total business; and on down through busy dry goods stores, filling stations and grocery stores to 53.4 percent of the drinking places and 41.4 of their summed-up trade.

Other types of businesses that, while a constituent part of big cities, are particularly successful in the small towns, include lumber and building supply firms, variety and liquor stores and combination grocery stores. But large department stores, delicatessens, optical shops and individual places dealing in office and school supplies are primarily big-town in nature.

Government guarantees of prices on farm products are looked upon as promising expansion of business in small towns which draw a considerable portion of their trade from surrounding rural areas.

Despite the renown of our great cities, America is a land of small-town, small-store make-up, and the markets afforded by "wide places in the road" cannot be ignored.

### PERCENTAGES OF NATION'S BUSINESS DONE IN TOWNS OF LESS THAN 5,000 POPULATION

	Per Cent
General stores .....	92
Hay, grain, and feed stores .....	63
Farm implement, tractor, hardware dealers .....	60
Farm and garden supply stores .....	49
Filling stations .....	42
Dry goods and small merchandise stores .....	41
Hardware stores .....	41
Lumber and building supply dealers ....	32
Drinking places .....	29
Retail food stores .....	25
New automobile dealers (Half of the Na- tion's dealers in new cars are located in towns of less than 5,000 population) ..	24

### COMMODITY OUTLETS ESPECIALLY SUCCESSFUL IN TOWNS UNDER 20,000 POPULATION

Type of outlet	Percent of these kinds of stores in U. S.	Percent of U. S. sales of this kind of business
General stores with food .....	98.5	97.1
Farm implement, tractor, hard- ware dealers .....	92.5	84.0
Hay, grain, and feed stores .....	86.7	83.2
Farm and garden supply stores .....	77.6	69.6
Dry goods and general merchan- dise stores .....	58.9	64.8
Hardware stores .....	65.6	62.7
Filling stations .....	72.7	58.3
Lumber and building material dealers .....	76.0	55.8
Grocery stores, without fresh meats .....	60.7	49.1
Combination grocery stores, with fresh meat .....	53.3	47.1
New automobile dealers .....	75.9	46.5
Soft drink and ice cream shops .....	54.6	42.2
Drinking places .....	53.4	41.4

Source: Bureau of the Census, U. S. Depart-  
ment of Commerce.



# September Industrial Expansion in South

## ALABAMA

**ANDALUSIA**—Freezer Plant—H. L. Mullins plans bids for freezer plant, containing 535 lockers.

**BIRMINGHAM**—Building—R. A. Smallman Co., has contract for constructing 1-story building for Cleveland Manufacturing Co.

## ARKANSAS

**HURRICANE CREEK**—Machinery — Defense Plant Corporation authorized acquisition of machinery and equipment for plant to cost \$450,000 to be operated by General Chemical Co., New York.

**LITTLE ROCK** — Reservoirs — Grand Prairie Irrigation Co., incorporated by Roy Prewitt, Sweet Home, plans reservoirs to provide water for rice growers; plan to capture natural drainage water behind dams on Two Prairie Bayou between Carlisle and Stuttgart and on Roc Roe Bayou south of DuValls Bluff.

## GEORGIA

**ALBANY**—Plant—Jewett & Sherman Company of Milwaukee, Wis., establishing peanut butter plant in Albany.

**BAINBRIDGE**—Locker Plant — J. B. McCrary Co., Atlanta, has contract for construction of locker plant Decatur County Freezer & Locker Co., Bainbridge, owner; cost \$35,000.

**CUTHBERT**—Plant — J. B. McCrary Co., Atlanta, has contract for constructing locker plant for Randolph Freezer & Locker Co.

**GAINESVILLE** — Plant — Swift & Co. started work on packing plant, main building.

**QUITMAN**—Plant—North Construction Co., Atlanta, has contract, work started, on freezer locker plant.

## KENTUCKY

Line—Interstate Commerce Commission, authorized Louisville and Nashville Railroad Co., Louisville, to construct a 3.5 mile branch from Millport (Muhlenberg County), south to a coal mine.

## LOUISIANA

**OPELOUSAS**—Plant—Thomas Bryan & Associates, Lafayette, handling construction work on \$60,000 sweet potato plant for Dezauche & Son.

## MARYLAND

**BALTIMORE**—Equipment — Defense Plant Corporation authorized execution of a contract with United Distillers, Limited, Baltimore, to provide equipment at a plant at Baltimore, at a cost of approximately \$365,000; United Distillers Limited will operate these facilities, title remaining in Defense Plant Corporation.

**BALTIMORE**—Plant — Cogswell Construction Co., has contract for addition to plant for General Elevator Co.

**BALTIMORE**—Plant — Talles Construction Co., has contract for manufacturing plant for Holitt Manufacturing Co.; cost, \$25,000.

**LANSDOWNE**—Expansion—Defense Plant Corp., closed contract with Monumental Distillers, Inc., to provide expansion of plant facilities at cost of \$20,000.

## MISSOURI

**PHILADELPHIA**—Factory — Chamber of Commerce erecting factory building to be occupied by Wells Lamont Corp., Chicago, 26, Ill.; manufacture workmen's gloves.

Improvements — Missouri Pacific Railroad, St. Louis, granted authority to expend \$5,732,000 for improvements; granted permission to spend \$5,271,000 for equipment including 7 Diesel engines and 1,000 box cars; \$367,000 for construction of 3 miles of track between Valley Park and Kirkwood, and \$94,950 for improvements and loading platforms in Rio Grande Valley; 3 crossings in Kirkwood, including Ossage Hill, and one near Barretts, will be eliminated.

Merger—Merger of 4 utility companies, serving Ozarks section of Missouri, Kansas, Arkansas and Oklahoma, was approved by companies' stockholders at Joplin; companies are merging under name of Empire District Electric Co.

**ST. CHARLES**—Expansion—American Car & Foundry Co., 30 Church St., New York, announces expansion of passenger car building facilities at its St. Charles plant; expenditure of \$1,500,000, doubling present capacity.

**ST. LOUIS**—Factory—Stille-Craft Manufacturers, erecting factory, cost \$20,000; owner builds.

**SPRINGFIELD**—Shops—St. Louis & San Francisco Rwy. Co., St. Louis, plans construction program at Springfield shop, to include: Fifty new 70-ton self clearing hopper cars; 10 new streamlined coaches; rebuilding of 800 coal cars; rebuild 50 box cars of plywood; 5 self clearing hopper cars using plywood instead of steel; Dieselizing of entire Springfield yards; priorities have been obtained for immediate beginning of work.

## NORTH CAROLINA

**CHARLOTTE**—Abattoir—Godley Brothers, operating abattoir and meat storage house applied for priorities for materials for expansion.

**CHARLOTTE**—Building—Frank F. Jones, purchased, for client, old city auditorium property northwest of East Fifth and College Streets; plan \$200,000 business building, when construction restrictions are relaxed.

**CHARLOTTE**—Expansion — J. A. Jones Construction Co., has contract at \$100,000 for expansion of cold storage facilities of Standard Ice & Fuel Co.

**CHARLOTTE**—Machine Shop — Ernest Foard, has work under way on machine shop, for Kanoy & Sons Co.; cost \$19,000.

**DURHAM**—Warehouse—Durham Container Co., acquired warehouse of Durham Public Warehouses, Inc., plans improvements, install new equipment; Durham Container Co. is a subsidiary of Menasha Wooden Ware Corp. of Menasha, Wis.

**HIGH POINT**—Addition R. K. Stewart & Son, has contract at \$20,000 for factory addition and alteration for High Point Overall Co., Inc.

**MOUNT HOLLY**—Rebuilding — American Yarn & Processing Co., obtained War Production priority to rebuild and modernize its former Nims Mill at Mount Holly, equip with modern machinery at cost of \$250,000.

**WINSTON-SALEM**—Plant—Firestone Tire and Rubber Co., has building permit to construct an addition and alteration to plant, cost, \$11,500.

## OKLAHOMA

Expansion—Cities Service Gas Co., Bartlesville, plans \$1,500,000 of new pipelines and

other facilities in Oklahoma and Kansas; applied to Federal Power Commission for permission; would add 32,000,000 cu. ft. of gas daily to capacity of eastern section of company's system.

Expansion—Public Service Co. of Oklahoma, Tulsa, plans expending \$3,300,000 on post war expansion program; approximately \$1,250,000 will be spent for additions and equipment at Tulsa generating station and for Hugo power station; \$450,000 for improvements and expansion of company's gas system in McAlester and Weleetka areas; high lines and high line equipment will be built and installed in Lawton, Duncan, Chickasha and Altus areas at cost of \$825,000; an additional \$860,000 will be spent in installing new and additional primary and secondary service lines throughout the system.

## SOUTH CAROLINA

**MIAMI**—Equipment—Defense Plant Corporation authorized acquisition of machinery and equipment for a plant in Miami at a cost of approximately \$500,000; B. F. Goodrich Co., Akron, Ohio, will operate these facilities, title remaining in Defense Plant Corporation.

## TENNESSEE

**CLARKSVILLE** — Expansion — Defense Plant Corp., completing final plans for expansion of B. F. Goodrich Co.'s plant at Clarksville, to produce soles and heels for military force; estimated cost of expansion \$500,000; expansion will consist of addition to present factory buildings and necessary machinery and equipment.

**CLARKSVILLE** — Defense Plant Corp., granted \$150,000 to B. F. Goodrich Co., Akron, Ohio, for acquisition of machinery and equipment for plant.

**MEMPHIS**—Addition—Swenson Evaporator Co., Harvey, Ill., and Henry Vogt Co. have equipment contracts for addition to plant at Memphis, operated by Southern Acid & Sulphur Co., Inc.

**SCOTT COUNTY**—Plant facilities—Defense Plant Corp. will negotiate contract soon for construction of plant facilities at Scott County for Brimstone Coal Corp., Columbus, Ohio; cost \$680,000.

Recycling Unit—Hudson Engineering Co., has contract for construction of 3rd. unit of recycling plant in Katy area of Waller, Fort Bend and Harris Counties for Humble Oil & Refining Co., Humble Bldg., Houston; cost, \$700,000.

**UNION CITY**—Factory Building—Majestic Manufacturing Co., St. Louis, Mo., erect \$500,000 plant for manufacturing stoves.

## TEXAS

**DALLAS**—Office, & Warehouse — Cowdin Brothers, Dallas, has contract at \$125,000 for construction of office and warehouse, joists, etc.; Southwest Wheel, Inc., 2500 Commerce owners.

**FORT WORTH**—Facilities—R. F. Ball Construction Co., Houston, has contract at \$396,000 for two service buildings and a garage for Consolidated Bomber Plant, Convair Division.

**HOUSTON** — Conversion — Southwest Construction Co., has contract for conversion of Tank Transmission Plant.

**HOUSTON** — Expansion — Robbins Monument Manufacturing Co., acquired site; expend \$15,000 for improvements.

**HOUSTON**—Gasoline Plant — Production

MANUFACTURERS RECORD FOR

# Industrial News

## Pulpwood Receipts Continue Improvement

The improved level of pulpwood receipts continued through July when 1,512,000 cords were delivered to mills, showing a gain of about 10.5 per cent above July, 1943, but about three per cent below July, 1942, the Forest Products Bureau of the War Production Board reported recently.

While this overall sustained upward trend in pulpwood receipts is encouraging, current receipts of pulpwood are still insufficient to meet the present and anticipated future high level of demand placed upon the pulp and paper industry to meet specific requirements for military and essential civilian items, WPB officials said. For the first seven months of 1944 total pulpwood receipts were 9,700,000 cords, an increase of 22 per cent over the same period of 1943, but a loss of 5 per cent under 1942.

## National Chemical Show To Be In Chicago

Reflecting the importance of industrial chemistry in the war effort and revealing new processes, products and ideas that will enhance peacetime progress, the third biennial National Chemical Exposition and National Industrial Chemical Conference will be held Nov. 15 through 19 at the Coliseum in Chicago.

Sponsored by the Chicago Section of the American Chemical Society, the show and conference will be of value to a vast cross-section of interests, including chemists, engineers, bankers, educators, manufacturers whose process in some way involves chemistry, and all those holding technical and management positions. Commercial exhibits will occupy every foot of floor space available for that purpose in the huge Coliseum and its Annex.

## Fairbanks Buys Pomona

Fairbanks, Morse & Co., Chicago, has purchased the Pomona Pump Company, a division of Joshua Hendy Iron Works in a \$4,000,000 transaction. Announcements of the sale were made simultaneously in Chicago by R. H. Morse, Jr., general sales manager of Fairbanks-Morse, and in Sunnyvale, Calif., by Charles E. Moore, president of the Joshua Hendy Co.

All physical assets, patents and trademarks of the Pomona and Westco pump lines were included in the transaction. The Pomona firm has plants in Pomona, California and St. Louis, and has been doing approximately \$7 to 8 million dollars worth of business annually. With acquisition of this line, Fairbanks-Morse becomes the world's largest manufacturer of turbine pumps.

## Porter Locomotives for Congo

Weighing 220,000 lbs. each with tender, two unusually large wood-burning narrow gauge locomotives have recently been completed and shipped by H. K. Porter Company, Inc., of Pittsburgh, Pa., for service on the Grand Lacs Railroad in French equatorial Africa.

The locomotives are built with large fireboxes and boilers for hauling heavy loads on long uphill grades which characterize the route. Their gauge can be changed from 39½ inches to 42 inches with only minor mechanical changes with a view to future possible use on connecting roads.

Running on a 1,000 mile single track line through the famous equatorial forest from Stanleyville on the Congo River to Albertville on Tanganyika Lake, the engines will use wood from the forests for fuel, there being no coal or fuel oil in that part of Africa. Native crews will man the engines exclusively.

## Lumber Production Drops

Estimated lumber production in July, 1944, was 2,843,765,000 board feet, a decline of 6.7 percent from that of the previous month and of 9.6 percent from that in July 1943, the War Production Board reported recently.

Production in July, 1944, would have been maintained at approximately the June level if the normal seasonal trend had prevailed, WPB said. The decline was attributed to shortages of manpower and logging equipment.

Production for the first seven months of 1944 (January through July) totaled 19,198,082,000 board feet, a decline of 2.6 percent from the amount produced during the corresponding seven months of 1943.

## De Busk Opens Atlanta Office

De Busk and Associates, Management Consultants, have opened offices in the Twenty-Two Marietta Street Bldg., Atlanta, Ga., to better handle conversion, management and personnel problems of their clients in the southern states.

## New Norton Grinder

Norton Company of Worcester, Massachusetts, builders of a wide line of cylindrical and surface grinders, tool room grinders, and lapping machines, has acquired all design and mechanism patents, copyrights, drawings, and all manufacturing and sales rights pertaining to the Bura-way Grinder. This unique tool and form grinding machine will henceforth be built and sold under the name "NORTON Bura-way."



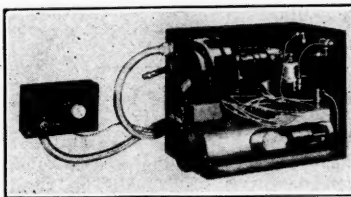
Single-point form tools are ground quickly, accurately on the Norton (Worcester, Mass.) Company's handy new grinder now on the market.

## Burroughs "E" Renewed

A renewal of the Army-Navy "E" award has been granted to the Burroughs Adding Machine Company. Announcement of the additional award was made in a letter from Admiral C. C. Bloch, U.S.N. (Ret.), Chairman of the Navy Board for Production Awards. After many months of secret production it was revealed sometime ago that Burroughs precision manufacturing facilities were being employed in the manufacture of the famous Norden bombsight as well as in the production of figuring and accounting machines required by the Army, Navy, U. S. Government, lend-lease and other enterprises whose needs are approved by the War Production Board.

## B & O Railroad Buys 10 Extra "Mallets"

The Baltimore and Ohio Railroad has placed an order for ten additional Mallet locomotives with the Baldwin Locomotive works, according to an announcement made by Roy B. White, B & O president. The new engine will be exactly the same as the twenty B & O Mallets on which Baldwin has just completed delivery, and which have been giving such excellent service on high speed freight trains on the road's eastern lines. They will cost \$272,300 apiece and it is expected that delivery will begin in May of next year and be completed in August.



Anchor Post Fence Company's New Truck Heater.

## New Plastic Foam Lighter Than Cork

Plastic foam weighing only one-seventh as much as cork has been developed and is being manufactured for important war uses by United States Rubber Company.

Important peacetime uses foreseen include insulation for trains, airplanes, automobiles and homes. In lifesaving equipment such as life preservers and floats and as buoyancy units on pleasure craft, this plastic foam will provide extreme buoyancy with minimum weight.

Although it has great buoyancy, it is semi-rigid. Because it contains so much air space, it has good insulation and sound-deadening properties in comparison to its weight. It weighs less than a pound and a half a cubic foot and can be made to weigh as little as three quarters of a pound per cubic foot.

To produce the new and different war material, a combination of synthetic plastic materials are foamed and then solidified. The new product is called floatofoam because of its buoyancy.

## South Gets Two of Five New Rubber Plants

Five synthetic rubber pilot plants are now under construction for leading rubber companies and are expected to reach completion early in the new year, it was announced today by the Blaw-Knox Company, designers and engineer-contractors of the quintuple project.

Development of new types of synthetic rubber polymers for further improving automobile tire and other synthetic rubbers is the overall purpose of the pilot plant installations.

Plants are being built for Firestone Tire & Rubber Company, Akron, Ohio; Goodyear Tire & Rubber Company, Akron, Ohio; United States Rubber Company, Naugatuck, Connecticut; Copolymer Corporation, Baton Rouge, Louisiana; and National Synthetic Rubber Company, Louisville, Kentucky.

## New Air Unit Converts Bench Vise to Automatic Machine

Vispeed, a new air or hand-operated bench vise has been developed by The Bellows Company, Akron, Ohio. This newest addition to the Bellows line of controlled air power devices consists of a standard 4" Reed bench vise operated by a powerful 8", foot-controlled, air cylinder. Clamping pressures are adjustable from zero up to 2½ tons, the practical safety limit of the vise itself.

It operates through the full range of the 6" jaw opening of the vise, positive safety control limits the air-powered movement of the movable jaws adjustable from zero to a maximum of 1".

It is foot controlled, leaving both hands free to handle work. Slight toe pressure closes the jaws, heel pressure opens them. Jaws lock in either position. Normal hand operation of the vise is possible at all times.

## Cotton Duck Impounded

Critical military needs for cotton duck were sharply emphasized recently when the War Production Board impounded all stocks of four important types of duck in excess of 500 yards in the hands of all persons, principally retailers, wholesalers, manufacturers and transportation companies. The types of duck are Army Duck, Numbered Duck, Flat Duck and Shelter Tent Duck. The impounded duck may not be used or sold, with certain minor exceptions, unless it has been rejected by both the Army and Navy.

## Truck Heater Pre-Heats Engines

A new idea in truck and bus heaters has been announced by the Fluid Heat Division of Anchor Post Fence Co., Baltimore. It combines the usual functions of cab heating and windshield defrosting, with the addition of trailer space heating and pre-heating of batteries, engine manifold and crankcase as desired. Known as Model SAH the heater is made in several different sizes with outputs from 10,000 BTU/Hr. on low rate, to 40,000 BTU/Hr. when firing at maximum rates. Control is remotely mounted.

(Continued on page 68)



# Industrial News

## New Fertilizer Source For South

An important new source of nitrate fertilizer for use on Southern farms after the war, was predicted recently by George W. Dolan, president of The Mathleson Alkali Works, Inc., at the opening ceremony of the new ammonia plant at Lake Charles, La. This plant is one of the two largest in the country producing ammonia from natural gas.

"In a world at war," Mr. Dolan stated, "one is apt to think of most wartime production as something that will not contribute to an improved economic life in times of peace. After the war, however, this plant will be a source of nitrate to grow bigger and better crops. It is our hope that it will contribute toward a more prosperous southern economy."

Now engaged 100 per cent in war production, the plant can easily be converted to peacetime production of fertilizer, it is stated. Constructed by the Defense Plants Corporation, the plant is operated under lease by The Mathleson Alkali Works, Inc.

Natural gas for the production of ammonia is abundantly available from nearby Tepehuate Field, and the new plant is ideally located on deep water for low-cost peacetime shipment of nitrate fertilizer to many points in the South and Southwest as well as the Mississippi River Basin via the Intracoastal Waterway.

## South's Forest Wealth To Be Advertised

An advertising campaign to acquaint the people of the South with the great value of its forests will be conducted during the next few months. There are an estimated 15 million people in what are regarded as Southern forest areas, and it is to them that the campaign will be directed.

The promotional or educational program is sponsored by the Forest Farmers Association, independent timber growers with headquarters in Valdosta, Ga. Wayne G. Miller, executive secretary of the Association, is directing the campaign which has been named the "Wooden Nickels Campaign."

## P&H Announces New Welding Film

"New Horizons in Welding" is the title of a 16 mm. sound film just released by the Harnischfeger Corporation, Milwaukee, Wis. A 30-minute presentation, it deals primarily with the set-up for production welding, picturing the step-by-step procedure followed where welding is used on a high-speed, mass production basis. It is not only the first complete story on the subject to reach the screen, but it serves to educate in the methods used to cut costs and speed production in modern fabrication of metal products. According to M. H. Rutishauser, Manager of the P&H Welding Division, the film will be available to all interested groups — manufacturers, trade schools, government departments, etc.

## New Cotton Tent, Tarpaulin and Cover Specifications

National Bureau of Standards, U. S. Department of Commerce, Washington 25, D. C., on recommendation of the National Canvas Goods Manufacturers Association and with the endorsement of the Standing Committee, has prepared for consideration a recommended revision of cotton fabric tents, tarpaulins and covers which is being submitted to producers, distributors and users for acceptance prior to publication by the National Bureau of Standards. Principal change is the inclusion of requirements for the marking of tents, tarpaulins and covers to indicate size.

## Electronic Temperature Control

Control of indoor temperatures through thermostats located outdoors and working through electronic controllers, with thermostats within the building, is accomplished through the Johnson Electronic Duo-Stat and according to the manufacturers effects fuel economies hitherto not possible with conventional controls located entirely indoors.

A pioneer in the field of modern electronic controllers which utilize resistance circuits, together with a sensitive yet rugged amplifying mechanism, the Johnson Duo-Stat is the result of proven operation over a period of

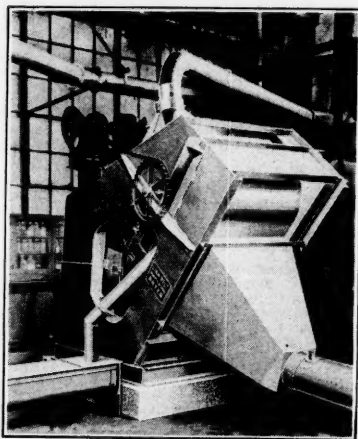
five years. Fuel savings which have resulted, coupled with the unique features afforded by electronic control, stamp the Johnson Duo-Stat as an instrument to be carefully investigated by every heating plant owner.

Johnson Electronic Duo-Stats "change the size" of heating systems in accordance with the outdoor temperature. To combat the coldest weather usually encountered in a given locality, radiators or other heating media in every building must be large enough to provide sufficient heat to maintain an indoor temperature of 70 degrees or more. Only a part of that heating capacity, however, is required during average cold weather and only a very small fraction of it is necessary on mild days.

The Johnson electronic Duo-Stats automatically insure that the full capacity of the heating plant will be available only when the weather is most severe. The heating effect is reduced, in proper proportion, as outdoor temperatures fluctuate from extremely cold to very mild.

The temperature of steam is approximately 210 degrees. To produce an average radiator temperature lower than that, the Duo-Stat admits only enough steam to partly fill the radiators. When used to control hot water heating systems the Johnson Duo-Stat varies the temperature of the water, in the system to produce lower or higher temperatures in accordance with outdoor conditions.

Applicable to steam, hot water or warm air heating systems, the Johnson Duo-Stat is easy to install and offers no maintenance problems that cannot be handled by the average electrician or mechanic, while proven fuel savings make it a desirable installation.



Link multi-louvre dryer.

## New Link-Belt Dryer

A new type of dryer, to be called the Link-Belt Multi-Louvre Dryer, is announced by the Dryer Division of Link-Belt Company, Chicago, for the low cost drying (or cooling) of bulk materials which do not require long retention periods. The new dryer is described as a very compact, fully enclosed unit, containing moving louvers supported on power-operated endless chains. The function of these moving louvers is to present the material as it flows, to secure the most efficient drying (or cooling) action.

This mixing action and thorough contacting of the material with the heated air introduced into the unit is said to promote efficient drying and assure a uniformly dry material. The air which is drawn in through the moving mass of material and exhausted at the top of the dryer can be heated to the temperature best suited to the material being dried. Ample passages between louvers permit air circulation at low velocity.

## Manly Heads F. P. C.

At its first full meeting since Senate confirmation of the appointment of Commissioner Olds, the Federal Power Commission recently unanimously elected Basil Manly, a native of Greenville, S. C., its Chairman for the period ending June 22, 1948.

## New Research Head Starts Planning Job

Hayden B. Johnson, recently appointed research director, Tennessee State Planning Commission, in addition to directing the research program of the Commission is also in charge of community planning assistance through the state.

For the past year and a half Johnson has served as community planning director in the Upper East Tennessee office of the state planning commission.

Johnson holds the Bachelor of Arts degree in fine arts from Amherst College; the Bachelor of Architectural degree and the Master of Science degree in planning and housing from Columbia University's School of Architecture.

## Patrick Henry Still Sails for Victory

The Liberty ship Patrick Henry, built at a southern yard—Bethlehem-Fairfield, Baltimore — whose launching, September 27, 1941, signalized the birth of America's wartime merchant fleet, is still on the job of transporting munitions and supplies to the far-flung forces of the United Nations.

To read the log of the Patrick Henry would be to take a refresher course in geography—Aden in Arabia; Mombasa, Durban, Cape Trinidad, Natal and other South African ports; the Red Sea; the United Kingdom; Murmansk; Casablanca; shuttle service in the Mediterranean, and once again to South and East Africa, then back to the Mediterranean.

Numerous attempts have been made from the air and undersea to sink the flagship of the Liberty fleet—which now totals more than 2,300—but the Patrick Henry has come through them all, even though there were times when the vessel was a target in sustained attacks on convoy to Murmansk and Archangel.

September 27, designated as Victory Fleet Day, was observed in ports and shipyards throughout the nation, the day dedicated to the American steamship companies operating the Victory Fleet.

## Southern S.S. Line Honored

Merchants and Miners Transportation Company, one of the leading coast-wise steamship lines of the South, was honored on Victory Fleet Day, September 27, when the War Shipping Administration awarded the Line WSA's newest flag, the WSA service pennant, for outstanding service in the operation of its part of the nation's wartime merchant fleet.

Coincidental with the pennant award, occurred the launching of the Liberty ship Milan R. Stefanik at yards of Bethlehem-Fairfield Shipbuilding Co., Baltimore. The Stefanik honored a famous Czech patriot, noted astronomer and national hero of the republic that has represented the utmost in resistance to Hitler and the forces of Nazism.

The Stefanik, built in 32 days at the Baltimore yard, was the 380th Liberty vessel to slide down these southern shipways, and was the 413th vessel launched at the Fairfield Yard since September 27, 1941, an average of one ship every 26.5 days.

MANUFACTURERS RECORD FOR

OCTOB



## TIMBER FOR TOMORROW

### *Springs from Southern Soil!*

Great southern forests yield lumber for myriad vital wartime uses. But greater still will be the demands of peace—lumber to be submitted to the magic of plastics and chemurgy, and lumber to satisfy the home-building instincts of millions of home-loving Americans.

Already the South is producing 40 per cent of U. S. lumber. And more than half the timber potential of our national forest areas is in the South. Thousands of acres of seedling trees give promise of timber deliveries equal to future needs.

Timber's great prospective activity is but typical of the South's postwar outlook in other fields—steel, textiles, oil, mining, cotton, chemistry, agriculture.

Delta Air Lines serves a South of vast productive capacity. Delta personnel daily brings nearer completion their plans for finer service, swifter airliners and extended airways—whenever there is a moment to spare from the first-business of essential wartime transportation and special operations for the armed forces.

THE AIRLINE OF THE SOUTH...SERVING A LAND OF POWER AND PROMISE



OCTOBER NINETEEN FORTY-FOUR

# Business Briefs

**GENERAL.** WPB expects production of 1,750,000 alarm clocks during last quarter this year, 2,500,000 in '45's first quarter. \*Air conditioning, electronics, plastics and aircraft (7,939 planes turned out in August) referred to as the "coming post-war industry."

Retail sales go up, go down, same time. July sales were 5,464 millions (Dep't. of Commerce say-so), 4 percent above July, '43, 2 percent below June, '44, decline being normal for the season; durable goods stores' sales upped 3 per cent from last year, non-durable goods sales jumped 5 percent; chain store and mail order houses rang up 5 percent more; department store sales for the nation at mid-September better by 16 percent than at same time last year, Atlanta and Dallas districts leading with 29 and 28 percent increases respectively.

More: States, municipalities and counties are on the mark with \$1.1 billions to spend immediately (when "go" comes) on roads (\$219,151,000) and other public works; have in "design and preliminary" stages another \$4.45 billions; in "idea" of \$6.3 billions for civic betterment. \*WPB's "spot authorization" lately let 3 firms start making civilian stuff (steel septic tanks, metal signs, Class B coal stokers). \*Straw in wind: Makers of consumer durable goods are getting around, not quietly either, offering choice sales areas to retailers.

OPA now has big-star-on-chest men to run down stamp counterfeiters and distributors, also during '44's first half wagged annoyed finger at 42,000 regulations breakers.

With few if's or whereases about it, a new British law assures returning soldiers their old jobs back; costs an employer up to 100 pounds for bucking.

Who makes the laws? There are 217 government courts and commissions whose rulings have the effect of law: \*Aside: 44 Government-owned corporations (34 over '31) employing 70,000 persons, have a borrowing power of \$33 billions, liabilities of \$16.5 billions, loans of \$6.5 billions and show a current loss of \$103 millions.

**MANUFACTURES.** Producers of capital equipment no longer need obtain WPB okay to start filling of unrated purchase orders (PR No. 24, as amended August 28). \*Jesse Jones asks 376 operators of 586 Gov't-owned war plants (\$4.7 billions in original cost) if they plan to acquire the properties for post-war use.

Textiles to undergo study by Congressional subcommittee: industry's leaders cordially invited to attend meeting in Memphis in early November; principal aims: to dispose of huge cotton surplus,

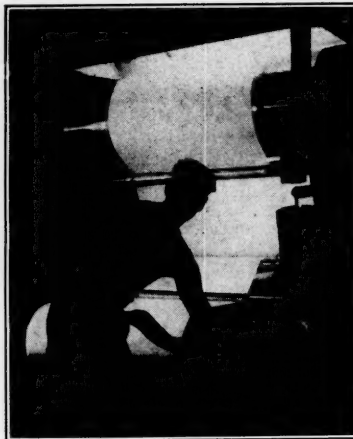
recapture foreign markets, keep up Southern production.

U. S. textile interests warned by export experts a downward revision in guesses on the coming export market may be necessary. \*Post-war exports of textile machinery, etc., to require cash on barrel head, says Lend-Lease. \*Haiti's first spinning mill to cost half million.

Gossip still rife about possible clothing rationing; Army says European V-Day will bring 10 percent drop, no more, in G. I. textile purchases, will mean only 1 to 3 percent more for civilians.

Cotton textile industry, frets WMC, needs a quarter million workers by Nov. 1 to meet estimated demands. \*Employment dropped 14 percent from Dec. to May, 437,900 being at work on June 1.

Textile thinkers think shelving of "Little Steel Formula" will cause upping of textile wages also, suggest 5 percent



as probable addition and anticipate jacking up of ceiling prices.

July hosiery shipments totaled 9.9 million dozen pairs, were 11 million dozen same month last year; manufacturers' stocks on July 1 were 5.6 percent below last year and 70.6 percent of the 2 months' shipping supply usually maintained.

Total output of spun rayon and mixed fibers going up (4,815,000 lbs. in first '43 quarter, 7,015,000 lbs. in same part of '44), spun rayon makes up nearly half; cotton men not overly bothered, say new wrinkles will give synthetics plenty to beat.

WPB ear-marks 8.9 billion board feet of lumber for last quarter distribution; requirements for period add up to 9,673 million feet. \*Lumber shipments (504 mills reporting) at late August were 6.3 percent below production, new orders were 8.5 percent below output, unfilled order files amounted to 102 percent of stocks. \*Softwood mills say unfilled orders equal 38 days' production, gross stocks equal 35 days' turn out.

Southern States normally turn out one-third of country's lumber supply; labor scarcity inadequate facilities make their production unequal to demand. \*Mills cutting no more than 1 million board feet each year turn in 85 percent of South's lumber production.

464 paper and board mills and makers of building paper and board are using waste paper; before war, less than 200 were. \*Pre-war use of waste paper averaged 4.5 million tons yearly, in '43 was 6 million tons; '44 goal is 8 million tons.

During July 512,000 cords of pulpwood were delivered to mills, 10.5 percent better than July, '43. \*Receipts of pulpwood during '44's first half were 25 percent above '43. \*Southern section, normally producing about 45 percent of the national total, had its record output in May and June, 635,000 and 660,000 cords, respectively.

Look out for competition: In India and Ceylon hard board (called 'coconite') is being made from immature coconuts good for panelling has heat and sound insulating qualities.

"Profiteering?": Despite wartimes, steel industry's earnings go down year after year; in '44's first half were \$78,525,445 (total for 20 steel producers, representing 88 percent of nation's ingot capacity); this was 9 percent below the like '43 period, a rate of return of 4.5 percent on investment; in 1937, first six months' earnings were \$159,054,000, a return on investments of 8.3 percent.

Steel's total payrolls (first half '44) gained new peaks; were \$1,318,264,000, more than twice the '37 total. \*In July, an average of 571,400 were employed, a little more than June but less than July last year; workers worked 45.4 hours at \$1.20 per hour (both averages) in July; working more for more than last year.

Weirton Steel has proved steel equipment can roll non-ferrous metals, is turning out magnesium in very thin gauges. \*Magnesium ingot production, by order of WPB, is to be cut back slowly by 40 percent; will reduce output from current monthly rate of 23 million lbs. to 14 million lbs.; also will entail sometime shut-down of 3 plants. \*WPB also orders aluminum production cut back 30 million ingot lbs. per month; reduces total output to less than half monthly peak of last fall.

Exceptional opportunity: seers complain of crystal ball shortage, offer from \$7 to \$15 for them. \*More of those hats: Our women are spending over \$3 billions for clothing and gee-gaws this year.

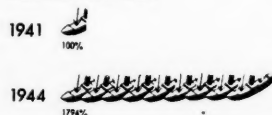
New continuous polymerization method increases by 40 percent (estimated) the capacity of nation's synthetic rubber plants. As first built, U. S. synthetic plants produced 735,000 long tons annually, later exceeded "design capacity;" will have a production potential of, with new processes, 1,338,000 tons, more than total pre-war demands for natural rub-

(Continued on page 64)

## HOW THE GOVERNMENT DOLLAR IS SPENT



## OUR PRODUCTION ACHIEVEMENTS III ...IN MERCHANT SHIPS







Camouflaged Communications Center of American Command Post during heavy fighting

## Front Line Telephone Post

**T**ELEPHONE lines are life-lines wherever our men fight. The lines lengthen with every mile of advance.

Bell System manufacturing facilities have had to be devoted almost exclusively to keeping the armed forces supplied with communication and electronic equipment. As a

result, we are short of telephones, switchboards and other equipment needed to meet civilian requirements.

We're sorry if you've had to wait for home telephone service. But you can be sure that every effort is being made to take care of your needs just as soon as the war allows.

### BELL TELEPHONE SYSTEM



OUR SOLDIERS TELEPHONE OVER HERE, TOO. . . . Whenever you can, please give the service men and women first chance at Long Distance between 7 and 10 each night. They'll appreciate it a lot.

OCTOBER NINETEEN FORTY-FOUR

# Business Briefs

(Continued from page 62)

ber; one authority thinks one-half of present plants will survive post-war.

Buna S, the synthetic used for tires, not as good as natural stuff; it generates life-shortening heat; but is superior for other uses. \*Synthetic neoprene has durability and resistance, good for girdles. \*Butyl, holds hot (and cold) air almost indefinitely.

An extra 70 million board feet of hardwood was given the furniture industry last month. \*Total July sales of paint, varnish and lacquer were \$51,724,593, against \$58,970,037 in June and \$50,106,908 in July '43; sales for '44's first 7 months were \$361,809,125, 9.4 percent above the like '43 period.

Food manufacturers earnings (first half, '44) were down 4.5 percent from last year: rate of return (on \$1 of sales) dropped from 4 2/3 cents in '39 to 2 3/4 cents in late '43. \*Rumor of vise-like restrictions (WFA) on use of refrigerated storage space for holding of quick-frozen foods may force cuts in planned extra production this year; would limit, says grapevine, storage to 9 months.



**AGRICULTURE.** Farm products prices were up one point at mid-August, were 193 percent of 1910-14 average and highest in 24 years; parity index was 170 percent of same average, 6 points above a year ago; livestock and livestock products indexes were 194 percent of 1910-14 averages.

History made: a new gadget takes the fuzz off peaches; no one knows what to do with the fuzz; likewise, there's now a one-man corn picker.

In August came rains and optimistic predictions by the Agriculture Dep't.: '44 crop yield will total about 4 percent above '43, 9 percent above any year prior to record-setting '42, 22 percent above the "pre-drought" 1923-32 averages; '44 yield will be within 2 percent of '42.

A war's end, agriculture's food production will be a third better than peacetime (says National Ass'n. of Manufacturers' pundit); gov't. will have enough eatables to stuff armed forces for a year.

Total farmer's cash income during '44's first half was \$1,178,000,000, 12.1 percent better than early half of '43; increase due partly to heavier Gov't. benefit pay-

ments (\$507 millions), chiefly to better marketing receipts; farmers' purchasing power (increased revenue less higher cost of goods they buy) was up 5.1 percent over last year, but buying power for whole '44 may be smaller than '43, prospective rise in price levels of goods bought by farmers being the villain.

Farm living costs seem to have increased nearly twice as much as the urbanite's; city citizen's living costs went up 23 percent between Jan. 1, '40 and March this year (Bureau of Labor Statistics), farmer's living costs soared 45 percent; farmers pay 53.7 percent more for food, urbanite 37.8 percent extra; farmers' clothing costs 56.7 percent more, city dwellers' 34.5 percent more; unfavorable difference charged to fact that most farmers buy low priced items on which prices have jumped most.

War Food Administration wants 7,500 heavy tractors substituted for light tractors in production schedules through next spring; schedules call for 22,141 new tractors over 30 h.p. by July 1 next year. \*Big tire company thinks 1.5 million rubber-tired tractors will be built in first 5 post-war years; at start of '44 there were 1,450,000 rubber-tired tractors on American farms, many now obsolete.

Southern Senators (spokesman, Bankhead, Ala.) ask Economic Stabilization Director to promise to take over all '44 cotton still held by producers on August 1 next year at full parity price; would, they say, immediately raise cotton price to parity (now selling at \$5-\$6 below).

Cotton consumed during August (source: Census Bureau) totaled 841,490 bales of lint, 125,063 of linters, less lint but more linters than in August, '43. \*'44's cotton crop now forecast (by Agriculture Dep't.) at 11,483,000 bales, 461,000 more than August 1 estimate, 56,000 greater than last year but 972,000 under the '33-42 mean.

Cotton lands decreased 2,600,000 acres since 1942, were put largely to livestock, a natural for building up depleted soil; for instance: Mississippi cattle now valued at \$100 million against \$15 million 10 years ago, Louisiana has 1,366,000 head (average, \$42.50 a head) against 740,000 (\$18.20 a head) a decade ago.

Hint: more beef and veal were produced in Federally inspected packing plants in August (600,000 million pounds, 21 percent over August, '43) than in any month on record, but supplies of choice and good beef are 'way down; due to reduction in feedings, marketing of grass-fed cattle which produce lean, non-rationed beef.

Tobacco: stocks of leaf tobacco in U. S. and Puerto Rico totaled 2,334,991,000 lbs. on July 1, 8 percent below that held on same date last year and lowest since '39; flue-cured tobacco stocks aggregated 1,004,071,000 lbs., down 14 percent from last year; burley stocks were 654,286,000 lbs., a decrease of 4.5 percent; over-all decreases due to smaller production, larger consumption, shipment to armed forces and exports.

New medicinal agent (rutin) found in tobacco. \*Tongue twister: rutin is "an effective therapeutic agent" for "increased capillary fragility" and is "chemically a rhamno-glucoside of quercetin and thus a derivative of flavonol;" now you know.

Citrus: 1944-45 crop expected to break all records. \*Of total allocable supplies (estimated for both fresh and processed fruits) of 15,300,000 pounds, War Foods Administration will let civilians have slightly more than 83 percent.

Sour note: The housewife probably will get less sugar in '45, smaller Cuban production and reduced U. S. stocks being responsible: On Jan. 1 nation's stocks amounted to 1,761,000 short tons.

**MINERALS.** Mining industry to have visitors: House Post-War Planning Committee will make a thorough study of it; purpose: to keep it operating profitably as a continued source of income for workers.

The Texas to W. Va. natural gas transmission line (1,263 miles, 1,000 being completed) might, says Tenn. Gas & Transmission Co., be ready to deliver gas this month, well before WPB's deadline for start of critical period for gas supplies in the Appalachian industrial area.



Bituminous coal production, the National Coal Ass'n. estimates, was about 424,530,000 tons from Jan. 1 through Sept. 2, this year, a little more than for the same period last year. \*Anthracite production for the year thus far was about 6.5 percent greater than during the like '43 period.

Solid Fuels Administrator Ickes worried about prolonged labor troubles, fears they may eventually imperil fuel supplies; production during week of Sept. 2 totaled 11,575,000 tons, "well below the weekly average of 12,038,000 tons necessary to meet estimated requirements of the '44-45 coal year;" but some coal men say output will yet be ample (if labor does not give extra trouble).

WPB loosed materials enough for making of 37,500 domestic type coal stokers during this year's last quarter; will not reach market before December.

Low-volume consumers (using less than 3,000 barrels of oil a year) in the East Coast area will soon, it is said but not verified, get okay to convert back to oil from coal; an extra 25,000 barrels daily of residual fuel oil is being made (Continued on page 63)

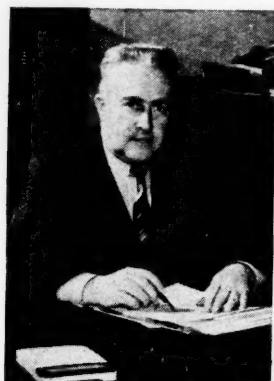
MANUFACTURERS RECORD FOR

# THEY'RE ALL SHIPBUILDERS NOW

These are just a few, out of thousands, of the men and women who have stepped aside from their peacetime occupations to help Bethlehem build a wartime fleet of 1,000 fighting ships and cargo vessels.



**BURNER** Dorothy Temple Williams, of Bethlehem-Hingham (Mass.) shipyard, is former Powers model.



**GUARD** Bernard McEntegart used to be an attorney, now works at Bethlehem's Brooklyn 56th St. repair yard.



**TRUCK DRIVER** Del B. Elliott, former film actor (*The Desert Song*), works at Bethlehem's San Francisco Yard.



**WELDER** Frieda Adolph, a onetime soda clerk, learned new trade at Bethlehem - Alameda (Calif.) yard.



**SHEET METAL HANDYMAN** is ex-hotelman Archibald Rae, of the Bethlehem-Sparrows Point (Md.) shipyard.



**HANDYMAN ELECTRICIAN** James H. Del Gaudio, of Bethlehem's Quincy, Mass. shipyard, was formerly a butcher.



**WELDER** Janet Darnell was a sculptress, now helps turn out ships at Bethlehem's Staten Island (N. Y.) yard.



**RIGGER** Louis Scott (*Chief White Eagle*) employed at the Bethlehem ship-repair yard in Hoboken, N. J.



**BURNER LEADER** Lester J. Davis, of Bethlehem-Fairfield (Md.) yard, was dancer and nightclub entertainer.



**SHEET METAL HELPER** Zena Saylor, at the Bethlehem-Sparrows Point shipyard, is former Kentucky salesgirl.



**MACHINIST** Thomas C. Hayes, who now works at the Brooklyn 27th St. ship-repair yard, is an ex-bartender.



**LAYER-OUT** Mrs. Evelyn Johnson, Alameda yard, one of thousands of Bethlehem housewife - shipbuilders.

Shipbuilding and Ship Repair Yards... at Quincy, Hingham, East Boston, Mass.... Staten Island, Brooklyn, N. Y.... Hoboken, N. J.... Baltimore, Fairfield, Sparrows Point, Md.... San Francisco, Alameda, San Pedro, Calif. Steel, Manufacturing and Fabricating Plants... Bethlehem, Steelton, Williamsport, Johnstown, Lebanon, Pottstown, Rankin, Leetsdale, Pa.... Buffalo, Lackawanna, N. Y.... Sparrows Point, Md.... Chicago, Ill.... Tulsa, Okla.... South San Francisco, Los Angeles, Alameda, Calif., Seattle, Wash.



**WORLD'S LARGEST SHIPBUILDER**

**SECOND LARGEST STEEL PRODUCER**

OCTOBER NINETEEN FORTY-FOUR



# Business Briefs

(Continued from page 64)

available.

"Triptane," a new, highly secret motor fuel, has 4 times the h.p. of 100-octane gasoline; now in laboratory stage, costs in neighborhood of \$35 a gallon.

Oil economists figure gasoline use right after the war will be 75-80 percent of '41 level, the war-reduced auto count being responsible for reduction; 2 years of car production would raise consumption above peacetime sums. \*By the way, Francis W. Rickett, the fast-talking international oil promoter of a decade ago, is swabbing decks for a living on an English channel auxiliary craft, is tired of it all.

Oil well completions at mid-Sep't. averaged about 70 daily; over half were oil wells, a good tenth gas wells and about 35 percent were dry holes; in this year up to Sep't. 9 completions totaled 14,385, around 3,500 more than in the similar '43 period.

Top-dog U. S.: American Merchant Marine Institute estimates that this country,

between '41 and '45, will have built 696 speedy tankers of 11,000 deadweight tons; further guesses that American post-war holdings in tankers at 1,070 ships totaling 15 million tons, contrasting with '39 global tanker tonnage of about 17 million tons. \*One shipping authority says post-war U. S. will have oil-carrying tonnage equal to whole pre-war world.

Oil wells going down all over the South, Miss., La., and Texas being especially busy.

## CONSTRUCTION.

Roll up your sleeves; Reports being circulated that enough lumber, steel and copper may be available following Germany's collapse to permit a \$4 billion dollar volume of construction in the ensuing year; this is twice the present amount. \*Construction men would like information about the developing supply of building materials and equipment for civilian use; would, they argue, avoid dangerous speculative buying.

American Society of Civil Engineers find

a sharp increase in plans for post-war construction; also find August total of such plans adds up to \$492,191,000, almost doubling July; bringing the grand total up to \$3,998,684,000, 27 percent of post-war goal of \$15 billion the Society contends must be ready for bids by mid-'45 if the country is to have a healthy resumption of activity.

As soon as materials become available, "reliable estimates," says one also reliable source, "indicate that the owners of the country's 6,000,000 farms will spend between \$500 and \$600 million a year improving their homes, barns and other farm buildings in the early post-war period, as compared with estimated expenditures of \$150 millions this year. . . . the value of new farm building has not exceeded \$300 million in any past year."

## FINANCE-TAXATION.

If you have a family of 5, you owe, brother, more than \$7,000 (may soon be \$10,000) as your family's share of the Federal debt; each man, woman and child in the U. S. now owes \$1,461.35. \*'43 Federal expenses were \$78 billions, including a billion for agriculture aid, \$2 billions interest on public debt, \$12 billions in overtime to workers.

If you have less than \$164.34, you are poorer than the average man; that is his proportion of the money in circulation in July; per capita circulation was \$131.42 in July, '43, at time of Pearl Harbor was \$83.55.

Federal Reserve Board has program of guaranteed loans and commitments to help war plants swing quickly into peace-time pursuits. \*Bernard Baruch says "transition credits" for small plants "absolutely necessary." \*Doughton (D. N. C.), Chairman of House Ways and Means Committee warns that we cannot go on with deficit financing after the war.

F. D. R. has forecast that by mid-'45 the Federal debt would reach \$258 billions; calling for better than \$5 billions annually for interest payments alone; on sane retirement plan, says another figure, \$25 billions annually, to be secured by taxes, will be needed. \*Federal taxes (estimated) for this year will be \$45 billions plus 30 percent of national income (\$150 billions estimated); state and local levies are extra. British taxpayer puts out 41 percent.

There is a war on: Despite taxes, savings by individuals between Jan. 1, '40, and June, '44, were around \$100 billions, by '45 should be \$115 billions.

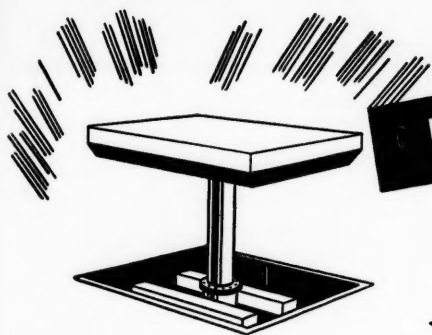
After mounting in '44's first half, non-farm mortgage financing receded in July 2 percent from June (to \$411 millions) but still was 17 percent higher than mid-'42.

Record assets for insured commercial banks: \$122.6 billions on June 30, 20 percent over last year; deposits also set new mark; \$114.1 billions, 21 percent up. \*Assets of national banks (including our possessions) totaled \$70 billions on same date, nearly \$11.5 billions more (for (Continued on page 68))

## Per Capita TAX COLLECTIONS



THE TAX FOUNDATION



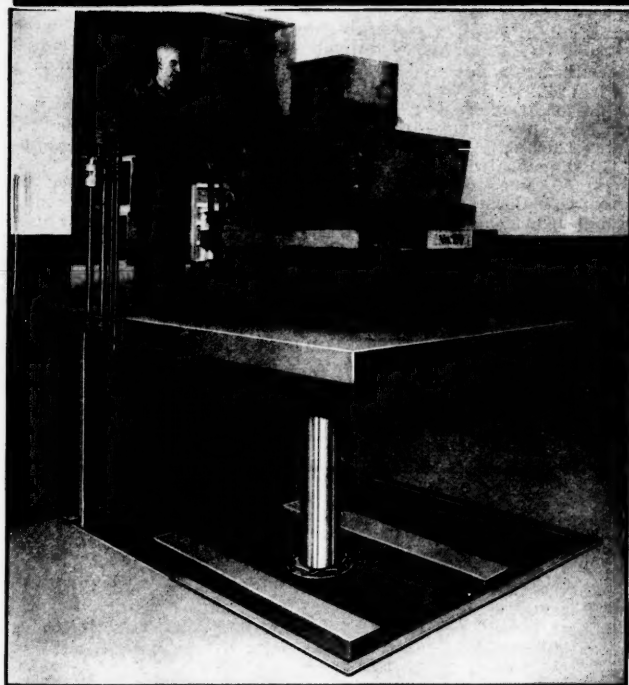
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**NOW YOU DON'T!**



*The loading dock and ramp that disappears at the push of a button!*



And when the Loading Dock and Ramp isn't THERE, there can be no blocking of traffic . . . no waste of space . . . and no accident hazard!

**WHAT'S THE SECRET?** Rotary Levelators! The modern loading dock and ramp eliminator! When stationed at floor level, the passage of heaviest traffic does not harm it. When there's loading to be done, the load is simply rolled ONTO the levelator—(like rolling it across the floor)—then at the push of a lever or button, the load rises smoothly and quickly to the exact height desired: to truck-bed or Railroad car level, or to an adjoining building floor. The Levelator lowers by gravity . . . no power used!

Simple, isn't it? . . . and the beauty of it is, LEVELATORS are just as easy to install and operate—yet, they're rugged to a superlative degree!

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Canada and Mexico*

ABOVE: A typical LEVELATOR INSTALLATION at the Airway Finishing Corporation, Chicago. They say: "Your equipment has enabled us to transport our finished goods to the upper landing at a great saving of time and labor." The platform stays level with the landings regardless of load conditions because system is HYDRAULICALLY locked. Note the bevel toe-guard that prevents toe crushing.

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**Rotary**  
MEMPHIS

**LEVELATORS  
FREIGHT ELEVATORS**

OCTOBER NINETEEN FORTY-FOUR

# Business Briefs

(Continued from page 66)

5,042 banks) than on same date last year; deposits added up to about \$66 billions.

Net working capital of American corporations totaled \$43 billions on last June 1, a record; went up \$1.4 billions during year. \*September corporate financing approached \$500 millions, greatest of any war month; most was for refunding at lower interest rates.

**TRANSPORTATION.** Rail men not yet agreed on whether to ask for restoration of 3 to 6 percent freight rate increases (granted March 2, '42; suspended May 15, '43); National Association of Railroad and Utilities Commissioners agin' increases; some rail men doubt increases will be restored in face of present net income (around \$381 millions for '44's first 7 months, although was \$528 millions for same period last year); net for '44 is guessed at \$650 millions plus, was \$873 millions in '43, \$903 millions in '42.

Class I railroads on Sept. 1 had 36,157 new freight cars and 554 locomotives on order; in first 8 months of '44 had put into service 22,312 freight cars, 657 locomotives (264 steam, 14 electric, 130 Diesel).

As for trucks: motor freight carriers (310 in 45 States reporting) in July had a decrease in freight loaded of 6.1 percent from June, 5.7 percent from July, '43; the 310 carried 1,898,025 tons in July (80 percent was general freight, 14 percent was petroleum, 3 percent iron and steel).

Goods taking to air: air express shipments (carried in combined air and rail service) gained 12.3 percent (250,970 shipments) in this year's first 7 months over 223,338 shipments in similar period last year. \*During '44's second quarter, Pan-American World Airways flew 207,192,827 passenger miles against 141,396,499 in same period last year.

Senators considering (after deciding to, 36 to 18) \$2 billion Gov't. kick-in to a



\$3.3 billion post-war highway construction program; the 18 dissenters thought "the time had come when Congress must consider the Government's debt."

**SHIPPING.** Southeastern shipbuilders set new record in '43 of 19,238,626 dead-weight tons floated (launched 8,089,732 in '42); nation's output this year through August was 1,109 ships of 11,059,586 tons; of 119 ships floated in August (1,157,602 tons), 50 came from East Coast yards, 34 from Gulf Coast ways.

Big-shot steamship men want permission to engage in post-war aviation along trade routes they established long ago; would, they say, protect their passenger business; Vice-Admiral Land of Maritime Commission, and Chairman Bland, of House Merchant Marine Committee battle to get such okay.

Beside the point: In '45 the U. S. Navy will have a total strength (65 million h.p.) greater than the power put out by

all sources of hydro-electric power in this country; a Fleet ship is now launched every 2 hours, in '45 Fleet will total about 8,445 ships, history's mightiest armada.

American ship operators (some 3,400 ships) moved about 27 million long tons of dry cargo (and 9.3 million tons of petroleum products) from U. S. ports during first half of '44; sailings with war cargoes are around 1,400 a month, one every 30 minutes; indications are that total '44 cargo movements will total perhaps 72,600,000 long tons; import shipments are rising sharply, are about to hit a balance with exports.

The shipbuilding industry still is largest war-time consumer of steel; of 30,667,000 tons of steel shipped in this year's first half, shipyards ate up 19.4 percent (5,945,880 tons); railroads were second hungriest (2,887,177 tons).

Post-war American shipping goal, as set by Maritime Commission, is between 15 and 20 million deadweight tons "of modern efficient vessels;" Gov't's. goal wants doubling U. S.'s share of pre-war shipping business, to be achieved through privately-owned and operated vessels, supported by gov't. subsidies.

**POWER.** Big pow-wow and feather pluming: 16th National Exposition of Power and Mechanical Engineering to be held in Madison Square Garden, New York City, from Nov. 27 to Dec. 2; originally planned to aid in war production, now will cater largely to civilian needs.

Electric energy produced for public use in August totaled 19,513,245,000 k.w.-hours, 3 percent better than same month last year; production by water power was 5,757,681,000 k.w.-hours, 29.5 percent of aggregate.

**FISHING.** See article on Page 30

## Payrolls Subject To Social Security Tax

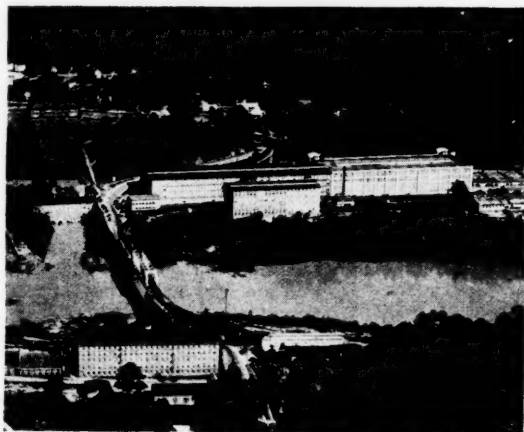
(Fiscal year ending June 30, 1944.)

	1943	1944	% gain
Alabama .....	\$ 671,065,750	\$ 763,121,300	13.7
Arkansas .....	195,616,200	202,228,600	3.4
Florida .....	513,418,500	628,630,900	22.0
Georgia .....	761,180,400	850,224,050	11.7
Kentucky .....	664,737,600	740,737,950	11.4
Louisiana .....	548,055,550	660,337,600	20.5
Maryland .....	1,983,061,150	2,242,960,600	13.1
Mississippi .....	178,365,800	184,748,300	3.5
Missouri .....	2,098,157,500	2,432,280,400	15.9
N. Carolina .....	979,408,700	1,099,101,550	12.2
Oklahoma .....	497,783,250	538,804,050	8.2
S. Carolina .....	333,902,900	343,624,450	2.9
Tennessee .....	632,477,700	727,693,050	15.0
Texas .....	1,893,104,800	2,207,136,150	16.6
Virginia .....	1,081,291,150	1,154,572,500	6.8
W. Virginia .....	442,826,300	506,889,750	12.9
<b>TOTAL .....</b>	<b>\$13,479,448,450</b>	<b>\$15,281,083,200</b>	<b>14.1</b>

—from Blue Book of Southern Progress, published by Manufacturers Record



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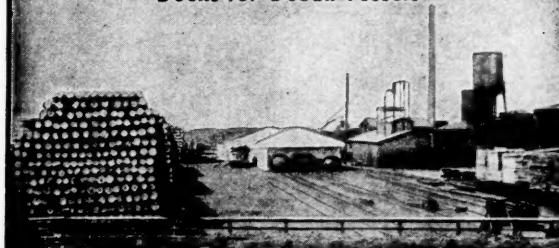
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Only experience and "know-how" can make a casting like this; and only such a casting can make a Lunkenheimer Valve.

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## TRADE LITERATURE

**ELECTRONIC TEMPERATURE CONTROL**  
Johnson Service Co., Milwaukee 2, Wis., manufacturers of automatic temperature and humidity controls since 1885, announce a new bulletin, No. 396-A, giving technical and installation data of their Electronic Duo-Stat, a precision weather-compensated heat regulator designed for universal application to heating systems of every type. Profusely illustrated, this catalog will be of invaluable aid to those confronted with problems of automatic heat and humidity control.

**FLAT SPRAY NOZZLES**—Chain Belt Co., Milwaukee, Wis., has published a new folder descriptive of REX flat spray nozzles. These nozzles are in service in practically all industries where water is used in cleaning, cooling and washing operations. They are made in a variety of sizes and from a variety of materials. The folder besides illustrating and describing the nozzle uses gives tabular information concerning their discharge in gallons per minute; their dimensions; a list of materials, sizes and prices.

**CANNING MACHINERY**—A. K. Robbins and Co., Baltimore, manufacturers of canning machinery and supplies, has issued two new catalogs, Nos. 700 and 700-A. The former is devoted to machinery for canning and modern canning equipment; the latter is devoted to labelers, feed tables, tray invertors, gluer-compressors and carton printers. Both publications are profusely illustrated, carrying detailed specifications and descriptions of the operation of the machines and appliances offered.

**WEDGE-SLOT SCREENS**—Hendrick Manufacturing Co., 30 Church St., New York 7, N. Y., manufacturers of perforated metals, have issued a new bulletin describing and illustrating applications of their new Wedge Slot Screens, especially designed to meet both wet and dry screening requirements. Special data sheets are supplied for listing and describing uses to which screens will be put, enabling the Hendrick Co. to tailor screens to individual requirements.

**EXPLOSIVES AND CHEMICALS**—The Advertising Dept., Hercules Powder Co., Wilmington, Del., manufacturers of explosives, insecticides and industrial chemicals, invite executives to write for a copy of "Current Hercules Literature," which lists 175 booklets on Hercules products and other information.

**POWER PLANT SERVICE BOOKLET**—"Dividends From Your Power Plant," containing ten non-technical discussions by men who are authorities on steam generating, is offered, without obligation, to engineers, executives and owners of establishments in which steam is generated for power. Address Preferred Utilities, Inc., 33 W. 60th St., New York, N. Y.

**CHEMICAL SURVEYS**—Berliner Chemical Surveys, 212 Fifth Ave., New York 10, N. Y., are offering a catalog of chemical surveys, carrying chemical survey reports compiled by a staff of research experts. Each report is devoted exclusively to a specific phase of industrial chemistry.

### Acid Cost Lowered

Itaconic acid, a chemical useful in the production of plastics, can be produced by a new method at a cost of approximately 50 cents a pound. Present prices run as high as ten dollars a pound, according to Dr. O. E. May, Chief of the Bureau of Agricultural and Industrial Chemistry, United States Department of Agriculture. The method was developed by Drs. Andrew J. Moyer, Lewis B. Lockwood, and George E. Ward of the Northern Regional Laboratory of the Agricultural Research Administration. "This process," says Dr. May, "involves the fermentation of corn sugar with a mold, *Aspergillus terreus*. The mold is seeded onto the surface of a 20 per cent sugar solution containing other necessary nutrients. It grows as a thick brown mat on the surface of the solution, which is kept in large shallow pans, and in the course of 10 or 12 days produces one pound of recoverable itaconic acid for each 4 pounds of sugar used."

MANUFACTURERS RECORD FOR

## Government Control Impedes Cotton Textile Production

Increasing Government control over the distribution of cotton textiles, with much heavier percentages of production directed through systems of graded priorities into specific end-uses not only for the war effort but in fields previously reserved for unrated civilian business were foreseen for the remainder of the war period by W. Ray Bell, president of The Association of Cotton Textile Merchants of New York, recently.

In the Association's 13th annual survey of the cotton textile situation, Mr. Bell pointed out that diminishing supply and greater war needs than had been foreseen necessitated the institution of drastic changes in distributive regulations at the outset of 1944. "There is every indication," he said, "that strict regimentation of cotton goods distribution will continue to be the outstanding feature of the year, barring an early ending of the war."

Mr. Bell pointed out that freezing of looms early in the year and channeling of goods for war purposes and for "essential civilian" items such as industrial bag, and electrical uses, fabrics for plastic laminates, abrasive and buffing cloths, and for work clothing and other purposes, had been followed just recently by new type priorities under the M-385 order which sets a new pattern of control for those performing the converting function. Where some 71 per cent of unfilled orders on the books of mills were at last report under war and essential civilian priorities, the new converting priority will cut by 20 to 50 per cent on given fabrics into the hitherto unrated civilian supply balance of about 29 per cent. This order and amendments to it probably will result in "a substantial curtailment of so-called luxury lines for the balance of the war period."

The ten year survey disclosed a 25 per cent shrinkage in cotton spindleage in that period, with a half million spindles going out of business last year in the face of an unequalled demand for all types of cotton goods. Less than 30 per cent of spindleage, it stated, is under 18 years of age. Despite such physical handicaps, the industry made a creditable showing in 1943, with 11,663,506,000 square yards produced, according to Association figures. Manpower losses received chief blame for production declines but "failure of OPA to rectify inequitable price ceilings or to appraise properly the practical and psychological effect on the industry of ill-advised price policies" also contributed to the lesser output than in 1942. "Total production for 1944," the report said, "can hardly be expected to reach above 11 billion square yards and most probably will be short of that figure."

### Proud Record of Miners

According to Solid Fuels Administrator Ickes, more than 302,000 tons of bituminous coal were lost because of mine strikes in the week ending September 2. In the preceding week strikes at soft coal mines were responsible for the loss of more than 200,000 tons. These are only two weeks that are cited by Mr. Ickes, but they indicate why bituminous coal supplies for the year will fall far short of requirements.



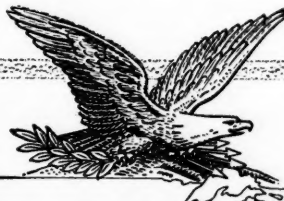
*"No, Mrs. Gordon,*

*insurance needs no ration points. But it has plenty of good points you should know about.*

- 1—Contrary to most commodities, fire insurance rates have decreased on an average of 40% since 1914.
- 2—A reliable local agent is ever present to give you prompt advice and assistance.
- 3—Beside the lower cost, You get even more for your money now, in broader, simplified policies.

Having represented the United States Fire Insurance Company for many years, I can promise you the most considerate cooperation should you have a loss. That is when a company proves its worth—as any of your friends who've had losses will admit."

*There is a United States Fire Agent in your community ever ready to serve.*



# UNITED STATES FIRE INSURANCE COMPANY

ORGANIZED 1824

NEW YORK, N. Y.



## East Coast's First Victory Ship

(Continued from page 47)

ident and general manager of Bethlehem shipbuilding operations in the Baltimore area, and Mrs. Willis.

The George M. Verity has been assigned to the United States Lines, which was represented at the ceremony by A. J. McCarthy, senior vice president. The usual procedure of choosing the operating company for a Maritime Commission ship was reversed in the case of the Verity, according to Mr. McCarthy, who said the selection of his line was made by Charles R. Hook, Sr., to whom the courtesy was extended by Federal shipping officials. Mr. Hook presented a large picture of the ship's namesake, with Jules Bouslog, Baltimore manager for the War Shipping Administration, accepting the portrait.

The Frederick Victory has been allocated to the United Fruit Company for current operations. Representatives of the Fruit Co. present were Richard W. Berry, and Geo. H. Ward. Crew's quarters on the new

ships, according to S. Duvall Schell, an official of the Maritime Commission and the War Shipping Administration, are almost as good as they formerly were on the luxury liners.

All ways at the Bethlehem-Fairfield yard are being converted to



Plastic Victory Ship model at Bethlehem-Fairfield.

Victory ship construction as fast as the few Liberty ships remaining under contracts with the Maritime Commission are launched. Ninety-eight of the Victory class will be built under present contracts. When the yard reached its peak Liberty

ship capacity after being converted from a ship scrapping plant to one of the great shipbuilding projects of the country, there were sixteen ways all used to rush Liberties into the allied supply fleet. Two of the ways have since been dismantled to make room for a comparatively new outfitting pier, bringing the total of these piers where the newly launched vessels are completed to three.

A transparent model of the Victory ship made almost entirely of plastic is used to help solve problems connected with operations at the Fairfield yard. The replica was fashioned by hand. It is on the scale of one-half inch to the foot. Acetone cement was used to weld the flat cellulose acetate sheets together. Construction is complete down to the naval guns, anti-aircraft batteries, DeGaussing cable, service lines and lifeboats and rafts.

One advantage already seen as the result of studies of the plastic pattern was the discovery that the giant gantry cranes used in ship construction could not be revolved

(Continued on page 74)

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—WELDED OR RIVETED—



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WELDED OR RIVETED CONSTRUCTION

This applies to field as well as shop built equipment.

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CHATTANOOGA BOILER & TANK CO.  
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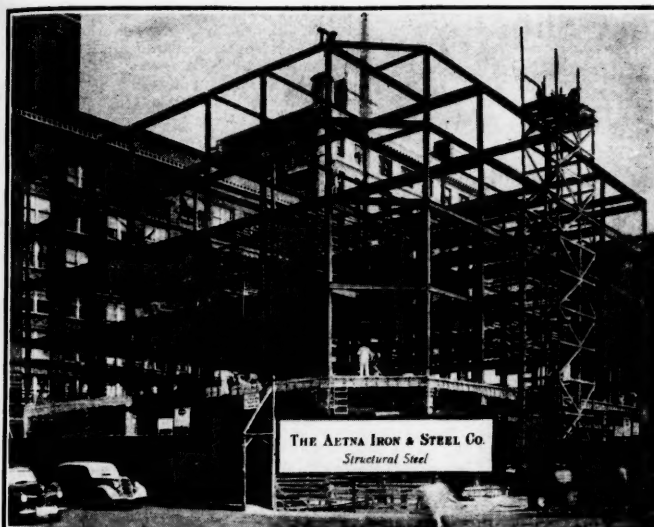
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BUILDINGS AND BRIDGES  
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Structural Steel for all Industrial Structures,  
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LARGE STOCK FOR IMMEDIATE SHIPMENT

## STRUCTURAL for BUILDINGS STEEL and BRIDGES

Capacity 1000 Tons per Month. 3000 Tons in Stock

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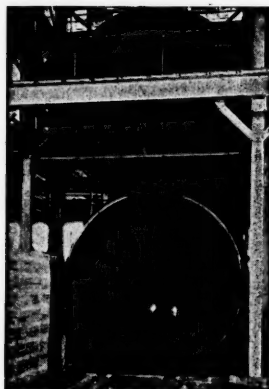
The Largest Steel Fabricators in the Carolinas

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## Lancaster TANKS



15'3" O.D. x 40' Long Vulcanizer

ELEVATED TANKS — PRESSURE TANKS — STEEL  
STORAGE TANKS — PROCESS TANKS — BUTANE-  
PROPANE TANKS — STANDPIPES — RETORTS — BINS  
— EXTRACTORS — BARGES — DREDGE PIPE AND  
ACCESSORIES — WELDED PIPE — RIVETED PIPE

General Steel Plate Construction  
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## Tank Builders For Over 80 Years!



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This water tank, designed,  
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COLE, not only provides fire  
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tanks in other odd shapes—  
bottles, etc. Does YOUR  
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Tanks of any kind and size  
for any purpose designed and  
constructed by us—storage,  
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Write for "Tank Talk"—No. 24-D

## R. D. COLE MANUFACTURING CO.

ESTABLISHED 1854

NEWNAN

GEORGIA

## East Coast's First Victory Ship

(Continued from page 72)

their entire circumference if the wings of the bridge of the wider Victory ships were built before launching. Because of this, the Victory ships are being launched without this part of the superstructure, which is added at the outfitting pier.

The various parts of the ships as built under mass production methods at the Bethlehem-Fairfield yard

are assembled at a former car manufacturing plant converted for the purpose at Curtis Bay and brought by railroad over the intervening miles to the Fairfield shipbuilding ways on the shores of the Patapsco River. The operation is one of several Bethlehem enterprises in the Baltimore area. There are the upper harbor ship repair yard and the Sparrows Point Shipbuilding yard, both pre-war plants. —S. A. L.

## Southern Industrial Expansion

(Continued from page 57)

Urgency Committee of Houston District War Production Board recommended for approval the application for permission to construct an \$11,000,000 fluid catalytic high octane gasoline plant at Shell Oil Co.'s refinery at Deer Park.

**HOUSTON** — Improvements — The Regan Forge and Engineering Company of San Pedro, Cal., purchased tract for future expansion.

**HOUSTON** — Plant — J. V. Dougherty, Houston, has contract for plant building, for Park-er Uniform Factory; cost \$10,000.

**LIBERTY** — Railroad — The Board of District Commissioners, Guy C. Jackson, Jr., Anaheim, chairman, discussed possibility of con-

structing a beltline railroad from Smith's Point on Galveston bay in lower Chambers county to Romayor in northern Liberty county as the first major unit for development of deep water and industry within the newly-created Chambers-Liberty navigation district.

**MARSHALL** — Radio Station — Marshall Broadcasting Co., applied to Federal Communications Commission for authority to establish a 1450 kilo-cycle, 250-watt standard station.

**MISSION** — Remodeling Plant — The Pride O'Texas Citrus Assn., plans remodeling packing plant.

**RAYMONDVILLE** — Additions — Delta Canning Co., plans additions to processing plant; private plans.

**RAYMONDVILLE** — Facilities — Willacy County, c/o Charles R. Johnson, County Judge, plans constructing dock facilities, near Raymondville; private plans.

**SAN BENITO** — Plant — C. D. Kirk & Co., San Benito, plans construction of processing plant.

### VIRGINIA

**DILLWYN** — Plant — Buckingham Frozen Foods, Inc., let contract to Taylor Manufacturing Co., Farmville, for erection of quick-freezing plant; work to start immediately.

**LURAY** — Expansion — Blue Bell Co., Inc., manufacturers of work clothes, will erect building, for proposed expansion.

**NORFOLK** — Equipment — Defense Plant Corp., RFC, subsidiary, authorized execution of contract with White Motor Lines, Inc., to provide transport equipment at cost of approximately \$65,000 for operation in Atlantic seaboard states.

**SOUTH BOSTON** — Expansion — Carter Fabrics Corp., plans expansion; install additional machinery, orders for which have been placed; work to begin as soon as critical materials have been released.

### WEST VIRGINIA

**PRINCETON** — Shops — Trimble Company, Pittsburgh, Pa., has contract for extension and improvements to Princeton shop buildings for Virginian Railway Co.

## Surplus War Property Estimates

The Surplus War Property Sub-Committee of the Senate Special Committee to Study Problems of American Small Business, has issued a special report, "Problems of Surplus War Property Disposal, July 21, 1944," copies of which may be obtained from any Senator or Congressman.



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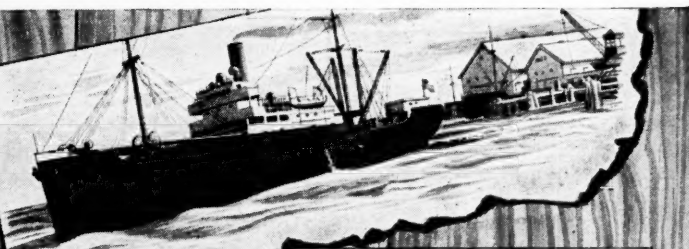
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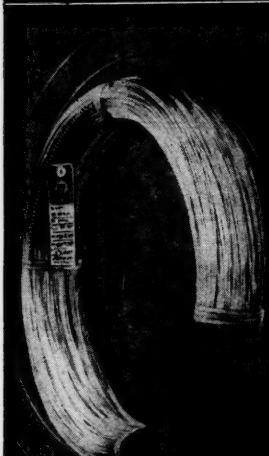
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## Music Wire



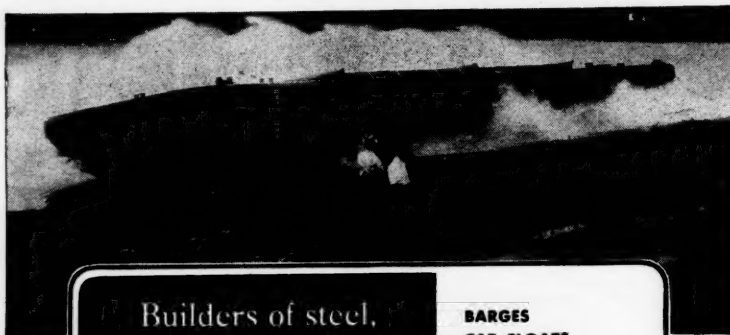
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**UNITED STATES STEEL**

## Martin Predicts on Plane Conversion Period

(Continued from page 51)

dislocation of people. This is the way he explains his views. Plane industry workers are divided into four groups. The first quarter were drawn from other industries, professions and established jobs, and will go back to their previous occupations after the war.

A second group is waiting to see what the industry can offer. This quarter of the more than 2,000,000 people engaged in producing planes, includes women who make up about 40 per cent of aircraft industry employment. The third quarter is not suited to the aircraft industry and will do better elsewhere. "This leaves a solid, experienced quarter," and "this group will be the nucleus with which we will build up our peace time expansion," he concludes.

Engineers at the Martin plant have already designed a short range, 30-passenger, twin-engine transport for postwar production. The plane is called the "202" and is designed to meet the A-1 specification of the Air Transport Association for short haul, post-war passenger and cargo aircraft. Preliminary data and drawings, as well as engineering studies including operating costs have been made on several variations of the design.

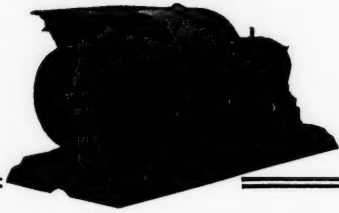
Two of the models would use Wright engines and would be of the low and high wing types respectively. The other is planned around the Pratt and Whitney engine, would be of low wing design and would offer a higher gross take-off weight and one engine operational ceiling. The ratio of useful load to normal gross weight would be approximately the same. All would meet the requirements for the Air Transport Association A-1 airplane, except the size of the airport from which they must operate. —S. A. L.

## Arkansas Plans Future

(Continued from page 50)

izing the business interests. The Agricultural and Industrial Commission is continuing its work in a vigorous way. The Governor-Elect, the Honorable Ben Laney, of Camden, Arkansas, is aggressive and sincere in his intention to develop the state industrially. Arkansas is definitely on the march.

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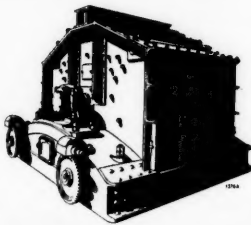


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## Southeast's Non-Metallic Minerals

(Continued from page 53)

dunite rock has found a definite place in open-hearth steel furnaces.

Dolomite is used in the bottoms of most steel furnaces, the roofs of which are silica brick made from silica sand of the South. Dolomite also is used as a fluxing agent in Birmingham iron industries. Kyanite is a "super refractory" used principally for furnace brick, special blocks, and as a plastic mixture for installing furnace walls or making repairs.

Mica, distinguished by its glass-like appearance and the extremely thin plates into which it can be split, has been mined in North Carolina for many years. More than 200 properties in the area around Spruce Pine, in the north-west region of the state, and in other states of the Southeast, have been worked during the past few years as war increased demands.

Every radio tube uses a mica spacer and a mica bridge; mica is found in many airplane spark plugs, in

radio condensers, and in other electrical devices. No satisfactory substitute has been found for this material and North Carolina residents are enjoying the spotlight of importance in this mineral. The South has perhaps two-thirds of the sheet mica industry.

Sericite, another mica in the Southeast, occurs in small, soft flakes and is used in the paint and rubber industries. Vermiculite also is a mica and is characterized by its squirming movements when heated. It expands greatly and forms a lightweight mineral "cork" weighing only 6 to 10 pounds a cubic foot and valuable for heat and sound insulation.

Sulfur is high on the non-metallic list. Louisiana turns out about 16 per cent of the Nation's supply of sulfur, ranking second to Texas.

Agriculture looks to the Southeast for limestone and dolomite dusts to control soil acidity, phosphate rock from huge deposits in Florida and Tennessee for phos-

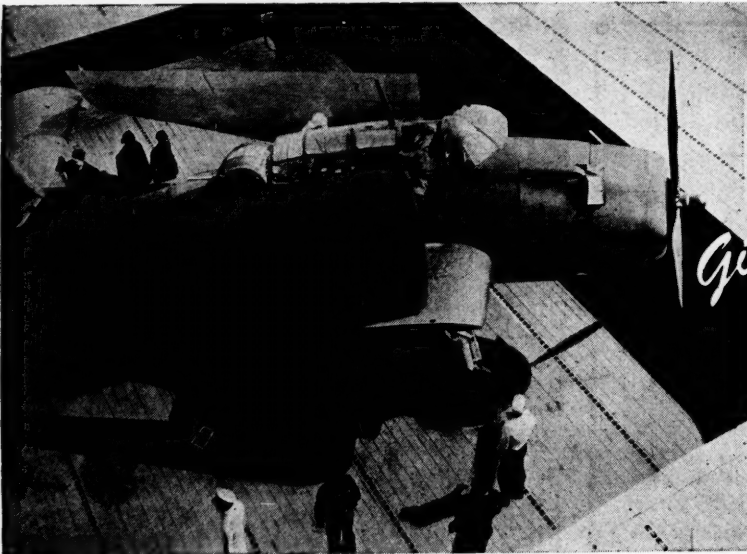
phate fertilizer, and greensand from Virginia as potash fertilizer. The building industry meets many of its requirements from the South's marble, granite and Virginia greenstone, and the diatomites of Virginia and Florida.

The diatomite deposits, which are microscopic silica skeletons of animal life, are used as insulators and also are employed in filtering most of the sugar juice, many fruit juices, and virtually every drop of beer that is brewed.

Barite from Georgia, Tennessee, and several other States goes into white paints as lithopne and is another servant of the construction industry. Barite likewise is used in oil-well drilling muds to make them heavy enough to resist heavy natural gas pressures and in several war chemicals, including green flares and other military signaling devices. Celestite, plentiful in Tennessee, is used in red fire signals, flares, and tracer bullets. North Carolina is the principal source of spodumene, another important war mineral.

Fluorite, a fluxing mineral, is

(Continued on page 80)



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Earle Gears are used in the operating machinery on aeroplane carriers to elevate fighter planes from hangar to flight deck—as well as for submarine capstans, steering engines, anti-aircraft guns, boat cranes, etc.—Earle Gears pour forth in an endless stream for America's fighting equipment. Earle Gears in war-time service are living up to their peace-

time record for accuracy and dependability. For more than 40 years, Earle has specialized in designing and cutting spur, bevel, ring, miter, worm, herringbone and other types of gears for every branch of industry in all practical materials from 1/4" to 30 feet in diameter. Write for Bulletin 42-B.

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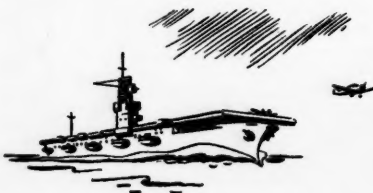


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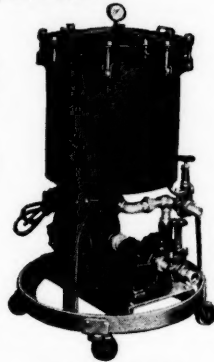
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COMPRESSORS



# Tobacco Crop Best Since 1929

(Continued on page 43)

revenue to Federal, State and Municipal governments. Thirty states impose special taxes on tobacco products, while nearly every city in the nation collects special license fees for tobacco sales privileges.

Since 1860 the tobacco farmer has received over \$16 billion for his crops and the manufacturer nearly \$32 billions, and there is no estimate available on the sums that have gone into the coffers of states and cities.

Classed as a weed, tobacco is today a highly cultivated product of agriculture, and its manufacture is a scientific process employing over 100,000 skilled workers. The United States Department of Agriculture continually studies methods of improving quality of the crop, increasing output, and developing new varieties to combat any possible unfavorable soil or climatic conditions.

Manufacturers, spurred by the competition that exists in a land of free enterprise, spend millions of dollars annually, experimenting, seeking new blends, new methods of manufacture, new ways to sell more of their products at less cost to the

consumer.

Distinctly a native of American soil, tobacco has been transplanted throughout the sub-tropical and tropical and moderate climate belts of the world, but the enterprise and initiative of American farmers and manufacturers have kept the production and manufacture of tobacco an American enterprise. It is true there are certain markets, notably China and the Orient, that are dominated largely by British manufacturers, but that domination has been lessening under the impact of war, and it is plausible to believe that we are capable of supplying those markets as their consumers come to learn the superiority of our products.

Tobacco manufacturing had its birth in the South. Virginia was the first state to develop the industry, though in later years North Carolina manufacturers have passed those of the Old Dominion. It is gratifying to notice that over the years, after an initial retreat following the War Between the States, the tobacco manufacturing industry, golden giant of the South, has largely returned to the land of its origin and the greatest source of its raw material.

## Kansas City Southern Now Using Radio

Conductors and engineers on Kansas City Southern Railroad freight trains now can grab their radio microphones and talk with each other—or with dispatchers—along their entire, main-line,

560-mile right-of-way.

Company officials, in disclosing that the system was in full use, said they believe this is the first railway system in America—perhaps in the world—to operate its own two-way radio communications system.

They stated that the equipment had

been used experimentally for about eight months as a project of the Aircraft Accessories Corporation of Kansas City, which manufactures radio equipment for the armed forces.

Telephone transmitters, loud-speaker receivers and other accessories have been installed in freight locomotives and cabooses and in 17 dispatchers' offices along the KCS's main line, running from Kansas City to Shreveport, La. The system now is in regular, continuous use.

Operating on a radio induction principle, the new type system differs from ordinary two-way radio, such as used by police and Army mobile units. Instead of broadcasting a strong signal in all directions to great distances, the "carrier" system emits a weak radio wave which can be picked up for only a few hundred feet.

These waves are picked up by the company's telephone, telegraph and teletype wires paralleling the tracks. Radio sets in other trains or in offices along the right-of-way pick up the waves by induction from the trackside wires.

## Southeast's Non-Metallics

(Continued from page T8)

found in greatest quantity in Kentucky. Used to thin the slag which forms over every steel bath and in many other metallurgical furnaces, it provides the essential ingredients for artificial cryolite, without which aluminum cannot be produced, and also makes a refrigerating fluid, freon, and some of the insecticides used by troops in the tropics.

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